

Friday Abstracts and Cases

Control Number: 25-A-341-ACCLA

Session Title: **Interventions and Ischemic Heart Diseases and Valvular Diseases Oral Abstracts**

Session Time: Friday, September 19, 2025, 9:00 am - 9:50 am

Presentation Number: 05-05

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: LIMITATIONS IN STEMI MANAGEMENT IN A COUNTY HOSPITAL IN EL PETÉN, GUATEMALA

Tanya Reyna, Rahul Banerjee, Cesar A. Ortiz-Vargas, Julio Vasquez-

Author Block: Gongora, Carlos García-Martínez, Hospital Nacional de San Benito, San Benito, Guatemala

Background: Timely reperfusion therapy is critical in ST-Elevation Myocardial Infarction (STEMI). This study was undertaken to determine how guidelines at a high-income country (HIC) compared to a hospital in Northern Guatemala [Hospital Nacional de San Benito (HNSB)], which is in a low-and medium income country (LMIC). This observational analysis is intended to understand current limitations and areas for improvement at HNSB.

Methods: A retrospective institutional chart review of 56 adult patients with ECG-confirmed STEMI presenting to HNSB (2023-2025) was conducted. Demographics, treatment strategies, and timing metrics were analyzed. Findings were descriptively contextualized with ACC recommendations and published literature.

Results: The patient population was composed primarily of men (61.5%) in their sixth decade of life [64.4 ± 14.6 (SD)-year-old]. Initial symptom-to-hospital door time was 11 hours (median) with a mean time of 26.9 ± 33.9 hrs. The difference between the median time compared to the American College of Cardiology recommendation (≤ 2 hours for ideal reperfusion in STEMI patients) was 5.5 times longer. Once in the hospital 95.7% of patients received aspirin, 100% received dual antiplatelet therapy, fibrinolytic therapy was received by 37.5% of patients (29.1% streptokinase,

8.3% alteplase), no one received percutaneous coronary intervention (PCI). Reasons for the low percentage of patients receiving fibrinolytic therapy reveal a limitation of doses the hospital has available per year (18 vials). The reason patients were not offered PCI at HNSB was the lack of interventional cardiology facilities at the site.

Conclusion: The current observational study, albeit small, has identified profound differences in the management of STEMI in HICs vs. HNSB. Patient education should be provided to be able to capture patients with initial symptoms to come to the hospital. The hospital should work with leadership to understand the need for fibrinolytic therapy and supply accordingly. Efforts for developing interventional cardiology capabilities should be explored. The outcomes of these patients compared to HICs is the next step in our study protocol.

Control Number: 25-A-12-ACCLA

Session Title: **Interventions and Ischemic Heart Diseases and Valvular Diseases Oral Abstracts**

Session Time: Friday, September 19, 2025, 9:00 am - 9:50 am

Presentation Number: 05-07

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PHARMACOINVASIVE STRATEGY AS AN ALTERNATIVE IN PATIENTS WITH STEMI AND CARDIOGENIC SHOCK: INSIGHTS FROM MEXICO CITY

Author Block: Rodrigo Gopar-Nieto, Jorge A. Ortega-Hernández, Hector Gonzalez-Pacheco, Alexandra Arias-Mendoza, Daniel Sierra, Diego Araiza Garaygordobil, Thomas Behrens, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Primary percutaneous coronary intervention (pPCI) is the standard of care for patients with ST-elevation myocardial infarction complicated by cardiogenic shock (STEMI-CS), but the role of a pharmacoinvasive strategy (PS) is less clear in patients presenting to non-pPCI centers or with delayed transfer. Our aim was to compare all-cause in-hospital mortality between pPCI and PS in patients with STEMI-CS in Mexico City.

Methods: We included 943 patients with STEMI-CS from January 2006 to August 2024 from a referral center in Mexico City. We described demographic and clinical characteristics and outcomes. Survival and mortality were analyzed using the Kaplan-Meier method and Cox regression.

Results: Of the 943 patients, 451 were treated with pPCI and 492 with PS. Total ischemic time was longer (5:50h [03:45-8:24] vs 04:00h [02:30-07:00], p<0.001) and time to arrival at the pPCI center was shorter (4:40h [2:31-7:00] vs 13:50h [7:20-29:47], p<0.001) with pPCI compared to PS. Mortality rates were similar (33.8% vs. 38.3%, p=0.152) and survival analysis showed that PS and pPCI were similar (HR 1.08 [0.87-1.33]). PS success was similar to pPCI success (HR 1.28 [0.98-1.67]). After adjustment only pPCI failure

remained associated with increased risk (HR 1.94 [1.34-2.79]) No differences were seen in bleeding or stroke, while no-reflow and VT/VF were more common with the pPCI strategy and reinfarction was more common with PS.

Conclusion: There were no differences in mortality between PS and pPCI in patients with STEMI-CS. Success of both strategies resulted in comparable outcomes, whereas failure of pPCI was associated with worse survival. PS may be an alternative in STEMI-CS when access to pPCI is limited due to logistic issues.

Control Number: 25-A-621-ACCLA

Session Title: **Interventions and Ischemic Heart Diseases and Valvular Diseases Oral Abstracts**

Session Time: Friday, September 19, 2025, 9:00 am - 9:50 am

Presentation Number: 05-09

Topic 1: Valvular Diseases

Publishing Title: CORRELATION BETWEEN MEDIATORS OF MINERALIZATION AND AORTIC VALVE DISEASE SPECTRUM

Itayetzin Beurini Cruz Vega, Maria Rashidi Springall, Nydia Ávil-Vanzzini, Claudia Lerma, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Aortic valve disease (AVD) is a progressive condition marked by inflammation, lipid infiltration, myofibroblast differentiation, and calcification, ultimately impairing valve function. The OPG/RANKL/RANK signaling axis plays a pivotal role in the pathogenesis of aortic stenosis. This study aimed to evaluate the correlation between mineralization mediators and the severity spectrum of AVD.

Methods: Ninety-three participants were enrolled in a cross-sectional observational study and classified into three groups based on echocardiographic evaluation: healthy valve (HV), aortic valve sclerosis (AVSc), and aortic valve stenosis (AVS). Medical histories were obtained, and 10 mL blood samples were collected for biochemical analysis. Intergroup comparisons were conducted using analysis of variance (ANOVA) and the Kruskal-Wallis test. Spearman correlation analyses were performed to assess the relationship between echocardiographic parameters and mineralization mediators.

Abstract Body: **Results:** Serum osteoprotegerin (OPG) levels were significantly elevated in the AVS group compared to HV. In contrast, receptor-activated nuclear factor- κ B ligand (RANKL) and interleukin-12 (IL-12) levels were reduced in AVS patients compared to both HV and AVSc groups. Similar reductions were observed for interferon-gamma (IFN- γ) and transforming growth

factor-beta (TGF- β). No significant differences were found between HV and AVSc groups. IL-12 and RANKL showed a negative correlation with aortic jet velocity and mean transvalvular pressure gradient, and a positive correlation with indexed aortic valve area, as did interleukin-10. RANKL showed a positive correlation with left ventricular ejection fraction and a negative correlation with OPG.

Conclusion: These findings suggest that mineralization mediators, particularly OPG, RANKL, and IL-12, play active roles in the progression of AVD. Their dysregulation may reflect an early compensatory response that diminishes as the disease progresses to advanced stages.

Control Number: 25-A-441-ACCLA

Session Title: **Interventions and Ischemic Heart Diseases and Valvular Diseases Oral Abstracts**

Session Time: Friday, September 19, 2025, 9:00 am - 9:50 am

Presentation Number: 05-11

Topic 1: Valvular Diseases

Publishing Title: MYOCARDIAL WORK CAN PREDICT POSTOPERATIVE FUNCTIONAL CLASS IN SEVERE AORTIC STENOSIS.

Author Block: Yaheli Itzel González Rojas., Gabriela Rodriguez Guzman, Jair Vazquez Hernandez, Gonzalez Alvarado Elizabeth, Zamorano Velazquez Noé Fernando, Eduardo Almeida Gutierrez, Lupercio Mora Karina, Moreno Ruiz Luis Antonio, Romero Zertuche Diana, INSTITUTO MEXICANO DEL SEGURO SOCIAL, Mexico, NM, Mexico

Background: The aim was to evaluate the correlation between the global myocardial work index (GWI) in patients with severe aortic stenosis, measured prior to aortic valve replacement, and the metabolic equivalents (METs) achieved during supine cycle ergometry six months after surgical valve replacement.

Methods: Patients were followed up at six months for a stress echocardiogram using supine cycle ergometry, functional class was assessed based on METs. Receiver operating characteristic (ROC) curves were constructed to determine the optimal cutoff point with the highest sensitivity and specificity for achieving more than 7 METs during the test

Results: A comparative analysis in 34 patients between baseline and 6 month values showed: LV mass 120.2 ± 27.7 vs. 84.4 ± 21.2 g/m², relative wall thickness 0.55 ± 0.11 vs. 0.47 ± 0.10 (both $p < 0.001$), LVEF 59.1 ± 5.8 vs. $61.5 \pm 3.8\%$ ($p = 0.02$), GLS -15.1 ± 3 vs. $-16.5 \pm 6.9\%$ ($p = 0.12$), and GWI 2307 ± 614.4 vs. 2015 ± 312.2 mmHg% ($p < 0.001$). (Table 1). The optimal cutoff point was 1953 mmHg%, with an area under the curve of 0.76 (95% CI: 0.58-0.93). In multivariate analysis, only GWI was a significant predictor of METs

achieved, with a p-value of 0.008 and an odds ratio of 0.079 (95% CI: 0.12-0.517). (Figure 1)

Conclusion: Patients with severe aortic stenosis and preoperative GWI values below 1953 mmHg% are more likely to achieve better functional class outcomes 6 months after surgical aortic valve replacement. Patients with higher myocardial work showed less reverse remodeling.

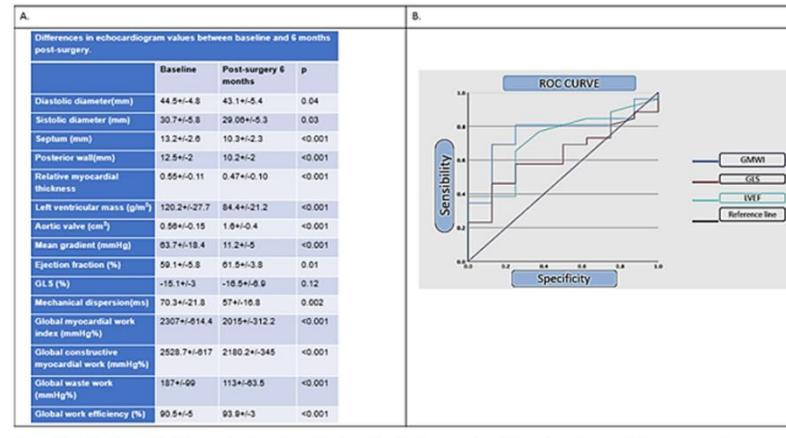


Figure 1. A. Table 1. Shows the differences in echocardiographic values at baseline (pre-surgery) and six months post-surgery. Values are presented as means and standard deviations. An independent samples Student's t-test was used to analyze the differences. B. ROC curves showing cutoff points for global myocardial work index (GMWI), global longitudinal strain (GLS), and left ventricular ejection fraction (LVEF). The area under the curve (AUC) for LVEF was 0.72 (95% CI: 0.53-0.91) with a cutoff value of 57%, while the AUC for GLS was 0.82 (95% CI: 0.42-0.81) with a cutoff value of -14%.

Control Number: 25-A-208-ACCLA

Session Title: Cardiac Arrhythmias and Multimodal Imaging Oral Abstracts

Session Time: Friday, September 19, 2025, 10:00 am - 10:50 am

Presentation Number: 08-05

Topic 1: Cardiac Arrhythmias

Publishing Title: SAFETY OF A STEPWISE APPROACH TO TRAIN ELECTROPHYSIOLOGY FELLOWS IN 0-FLUOROSCOPY AF ABLATION

Author Block: Juan Carlos Diaz, Oriana Cristina Bastidas Ayala, Luis M. Ruiz, Cesar Daniel Niño Pulido, Julián Aristizábal, Jorge Eduardo Marin Velasquez, Mauricio Duque, Universidad CES, Medellin, Colombia

Background: Fluoroscopy use is common in atrial fibrillation (AF) ablation procedures during training and early career, as it is perceived to reduce the risk of procedure related complications. We describe the safety of a standardized sequential approach to train fellows in 0 fluoroscopy (0F) AF ablation.

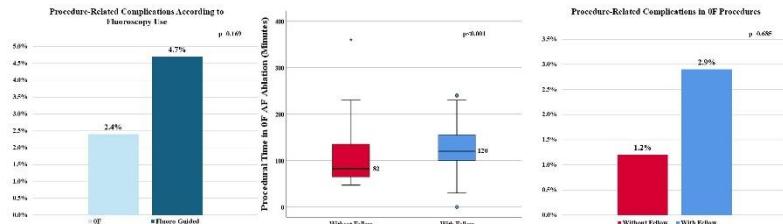
Methods: Fellows received extensive training in intracardiac echocardiography and underwent a stepwise training program consisting of 1. Manipulation of a mapping catheter within the left atrium 2. Manipulation of the ablation catheter during AF ablation procedures, demonstrating stepwise proficiency in the left posterior pulmonary vein (PV), right PVs, and left anterior PV; 3. Performing a transeptal puncture; 4. Performing solo AF ablations.

Results: Between 2022 and 2024, 585 AF ablations (fellows: 416 procedures; 0F: 329) were performed. In procedures involving fellow participation, there were no differences in procedure-related complications between fluoro-guided and 0F ablations (2.4% vs 2.9%, p=1.0). 0F procedure duration was longer (120[100 vs. 155] vs. 82 [65-136] min, p<0.001) without differences in procedure-related complications (2.9% vs. 1.2%, p=0.685) in procedures with and without a fellow, respectively.

Conclusion: Using a standardized approach, 0F AF ablation can be safely

Abstract Body:

introduced into a fellowship training program, at the expense of increased procedure duration. We believe this approach could be implemented into electrophysiology training programs.



Control Number: 25-A-594-ACCLA

Session Title: Cardiac Arrhythmias and Multimodal Imaging Oral Abstracts

Session Time: Friday, September 19, 2025, 10:00 am - 10:50 am

Presentation Number: 08-07

Topic 1: Cardiac Arrhythmias

Publishing Title: EARLY DETECTION OF INHERITED ELECTRICAL CARDIOPATHY THROUGH HIGH-RESOLUTION ECG IN FIRST-DEGREE RELATIVES: A COST-EFFECTIVE STRATEGY

Author Block: Jorge Gustavo Rojas Salazar, Yareli Lizbeth Rojas Salazar, Emiliano Gómez Montañez, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Mexico

Background: Inherited cardiac electrical diseases (ICED), including Long QT Syndrome (LQTS), Brugada Syndrome and Catecholaminergic Polymorphic Ventricular Tachycardia, are rare but potentially lethal conditions often responsible for sudden cardiac death (SCD) in young and otherwise healthy individuals; which early detection through targeted screening in first-degree relatives of affected individuals may allow preventive strategies that significantly reduce mortality. This study evaluated the diagnostic yield and cost-effectiveness of using high-resolution electrocardiogram (ECG) as a screening tool in this high-risk population.

Abstract Body: **Methods:** We conducted a prospective observational study involving first-degree relatives of patients with confirmed ICED. Participants underwent comprehensive clinical assessment and high-resolution ECG. ECGs were interpreted for characteristic features of ICED by experienced electrophysiologists; and those with abnormal findings were referred for genetic testing and cardiology follow-up. A cost-effectiveness analysis was performed comparing this proactive screening approach with standard care based on symptom-driven referral.

Results: A total of 87 relatives were screened, where 19 individuals (21.8%) presented ECG findings consistent with a possible ICED; and among them, 16 (84.2%) were completely asymptomatic and unaware of any risk. The

screening process enabled early diagnosis and clinical intervention and economic analysis showed a lower cost per detected case compared to routine care, particularly when factoring in the prevention of life-threatening arrhythmic events and associated healthcare utilization.

Conclusion: High-resolution ECG screening in first-degree relatives of ICED patients is a valuable and cost-effective tool for early identification of at-risk individuals. Its incorporation into clinical practice may enhance SCD prevention through timely diagnosis and management.

Control Number: 25-A-616-ACCLA

Session Title: Cardiac Arrhythmias and Multimodal Imaging Oral Abstracts

Session Time: Friday, September 19, 2025, 10:00 am - 10:50 am

Presentation Number: 08-09

Topic 1: Multimodal Imaging

Publishing Title: MYOCARDIAL CONTRACTION FRACTION AS A PROGNOSTIC MARKER IN PATIENTS WITH CARDIAC AMYLOIDOSIS

Author Block: Carlos M. Peñate, Amalia T. Peix Gonzalez, Kenia María Padrón García, Aylen Perez Barreda, Roxana Pazmiño, Sheila Hechavarría, Carlos Fonseca-Marrero, Fernando Barba Arce, Juan Carlos Collado Falcón, José Alejandro Àvila Cabreja, Ernesto Peña-López, National Institute of Cardiology and Cardiovascular Surgery, Havana, Cuba

Background: Prognostic assessment in cardiac amyloidosis (CA) remains challenging due to its heterogeneous clinical course and overlapping imaging findings. Echocardiographic myocardial contraction fraction (MCF) has emerged as a promising and accessible prognostic marker in this setting. We hypothesized that MCF predicts mortality in patients with CA.

Methods: We prospectively followed 30 patients with confirmed cardiac amyloidosis (mean follow-up: 18.2 ± 5.8 months) who underwent transthoracic echocardiography. The association between MCF and all-cause mortality was evaluated using Cox proportional hazards modeling, with variable selection in the multivariable analysis performed using a penalized weighted proportional hazards model with a Lasso-type penalty.

Results: The cohort had a mean age of 70.1 ± 8.6 years, and 76.7% were male. Six patients (20%) experienced the primary outcome. Median MCF was 31.5 (interquartile range: 24.1-48.9), and was significantly lower among patients who died during follow-up (21.9 vs. 38.2; $p < 0.0001$); notably, 92.3% of these patients had an MCF $\leq 25\%$. In multivariable analysis, an MCF $\leq 25\%$ was identified as an independent predictor of mortality (HR: 5.456; 95% CI: 1.628-18.29; $p = 0.006$), outperforming other conventional imaging markers.

Abstract Body:

Conclusion: Myocardial contraction fraction was an independent predictor of mortality in patients with cardiac amyloidosis. These findings support its potential role in clinical assessment and risk stratification.

Table 1. Univariable and Multivariable Predictors of Mortality.

Characteristic	Univariable Analysis			Multivariable Analysis ^j		
	HR ⁱ	95% CI ^j	p-value	Adjusted HR ⁱ	95% CI ^j	Adjusted p-value
AL-CM ^k vs ATTR-CM ^l	4.076	1.386 - 12.71	0.011	5.040	1.274 - 19.93	0.021
NYHA Class III-IV	2.206	0.606 - 8.032	0.230			
Troponin I \geq 125 ng/L	9.344	2.052 - 42.55	<0.001	3.812	0.586 - 24.81	0.161
Pro-BNP, pg/mL	1.001	1.001 - 1.003	0.002			
eGFR ^m $<$ 60 mL/min/1.73 m ²	2.750	0.845 - 8.944	0.093			
Stroke volume, mL	0.968	0.942 - 0.995	0.021			
Left ventricular ejection fraction (LVEF), %	0.937	0.892 - 0.983	0.008			
Mitral annular plane systolic excursion $<$ 10 mm	5.734	1.266 - 25.97	0.023	2.773	0.485 - 15.86	0.252
Grade 3 diastolic dysfunction	8.112	1.781 - 36.95	0.007	1.528	0.229 - 10.19	0.661
Global longitudinal strain	0.792	0.615 - 1.021	0.072			
Apical sparing	1.232	0.414 - 3.669	0.707			
Myocardial contraction fraction (MCF) \leq 25%	5.377	1.787 - 16.18	0.003	5.456	1.628 - 18.29	0.006
LVEF/MCF ratio	7.734	1.697 - 35.26	0.008			

ⁱThe variables were selected using a penalized weighted proportional hazards model with a Lasso-type penalty

^jHR = Hazard ratio, CI = Confidence interval

^kAL-CM = Light-chain cardiac amyloidosis, ATTR-CM = Transthyretin cardiac amyloidosis

^mEstimated glomerular filtration rate

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Control Number: 25-A-756-ACCLA

Session Title: Cardiac Arrhythmias and Multimodal Imaging Oral Abstracts

Session Time: Friday, September 19, 2025, 10:00 am - 10:50 am

Presentation Number: 08-11

Topic 1: Multimodal Imaging

Publishing Title: THE ROLE OF LEFT ATRIAL STRAIN IN THE FOLLOW UP OF PATIENTS WITH HEART FAILURE WITH REDUCED EJECTION FRACTION AFTER ADDING VERICIGUAT TO OPTIMAL MEDICAL TREATMENT

Patricia Nava-Sanchez, J. Daniel Sierra-Lara Martinez, Mariana Garcia

Author Block: Villarejo, Rodrigo Gopar Nieto, Alexandra Arias Mendoza, Diego Araiza, National Institute of Cardiology Ignacio Chavez, Mexico City, Mexico

Background: Vericiguat, a soluble guanylate cyclase stimulator, is emerging as the fifth component of optimal therapy for heart failure with reduced ejection fraction (HFrEF). Left atrial strain (LAS) is a sensitive marker of atrial remodeling, associated with poor outcomes in HFrEF. This study evaluated LAS changes after vericiguat initiation.

Methods: This prospective, longitudinal, single-center, investigator-controlled study included patients ≥ 18 years with HFrEF (left ventricle ejection fraction, LVEF $\leq 45\%$) and a recent worsening episode. Exclusion criteria included severe valvular disease, acute myocarditis, restrictive or hypertrophic cardiomyopathy, eGFR < 15 mL/min/1.73m 2 , or use of nitrates, PDE-5 inhibitors, or guanylate cyclase stimulators. Vericiguat was started at 2.5 mg and titrated to 10 mg. LAS, LVEF, LV global longitudinal strain (GLS), NT-proBNP, and NYHA class were measured at baseline, 7, and 30 days.

Results: Twenty patients were included (60% male; mean age 61.8 ± 4.2 years; NYHA III-IV: 50%; ischemic etiology: 60%; atrial fibrillation: 25%; LVEF: $31.9 \pm 8.4\%$). The Friedman test showed no significant change in LAS over time ($\chi^2 = 1.46$, $p = 0.48$). In a subgroup of 9 patients with ischemic HFrEF and sinus rhythm (LVEF $33.5 \pm 6.5\%$), the result was also non-significant ($\chi^2 = 0.48$, $p = 0.78$). LAS showed high internal consistency across timepoints (Spearman's rho > 0.93 , $p < 0.001$), suggesting stability.

LAS at 7 days correlated inversely with NYHA class ($\rho = -0.553$, $p = 0.017$). Positive correlations were found between LAS and LVEF at baseline ($\rho = 0.532$, $p = 0.016$) and 30 days ($\rho = 0.543$, $p = 0.016$). LAS also correlated inversely with NT-proBNP ($\rho = -0.681$, $p < 0.001$) and LV GLS ($\rho = -0.600$, $p = 0.005$).

Conclusion: LAS did not significantly change after vericiguat but remained stable, suggesting a potential stabilizing effect. Correlations with NYHA, LVEF, NT-proBNP, and LV GLS support the prognostic value of LAS in HFrEF.

Control Number: 25-CCC-633-ACCLA

Session Title: Challenging Cases in Heart Failure and Cardiomyopathies

Session Time: Friday, September 19, 2025, 1:50 pm - 2:40 pm

Presentation Number: 13-05

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: LYMPHOCYTIC VARIANT HYPEREOSINOPHILIC SYNDROME PRESENTING AS CHRONIC EOSINOPHILIC LEUKEMIA WITH LOEFFLER ENDOCARDITIS AND CARDIOEMBOLIC STROKE

Author Block: Natalia Gloria, JORGE EDUARDO HERNANDEZ DEL RIO, Tomas Miranda, Dario Fernando Mencia, Jesús Guillermo Rodríguez de la Torre, Christian González Padilla, Oscar Sergio Lomeli Sanchez, Hospital Civil Fray Antonio Alcalde, Guadalajara, Mexico

Background: Loeffler endocarditis is a rare and severe form of restrictive cardiomyopathy associated with hypereosinophilic syndromes. It involves progressive eosinophilic infiltration of the endocardium leading to thrombus formation, fibrosis, and potential embolic events.

Case: A 53 year old woman presented with somnolence and progressive dyspnea. She had a history of atopic dermatitis and recent labs showed leukocytosis (86,000/ μ L), eosinophilia (14,500/ μ L), and thrombocytopenia. On arrival, she had precordial pain, right hemiparesis, and digital cyanosis.

Abstract Body: CT brain revealed a lacunar infarct. Transthoracic echocardiogram showed **biventricular endocardial thickening, right ventricular dilation, and free wall hypertrophy**. Cardiac MRI revealed **mild left ventricular systolic dysfunction (LVEF 44%), extensive endocardial thickening and enhancement**, and an **apical laminar thrombus** in the left ventricle, consistent with **subacute Loeffler endocarditis (thrombotic phase)**. Additionally, **pulmonary artery dilation (30 mm)** suggested **pulmonary hypertension**. Brain MRI showed **three infarcts**, confirming a **cardioembolic etiology**. Anticoagulation and heart failure therapy were initiated.

Decision-making: Bone marrow aspiration revealed **57% lymphoid**

hyperplasia. Immunophenotyping identified **monoclonal T lymphocytes**, and biopsy confirmed **chronic eosinophilic leukemia**, establishing the diagnosis of **lymphocytic variant hypereosinophilic syndrome**. Steroid therapy led to resolution of skin lesions and eosinophilia. The patient was discharged on rivaroxaban, pending molecular study results to assess potential treatment with low-dose imatinib or cyclosporine. Unfortunately, the patient died six months post-discharge, prior to the initiation of the planned therapy, due to complications related to her underlying condition.

Conclusion: This case highlights the complex presentation of a patient with hypereosinophilic syndrome (HES), which resulted in Loeffler endocarditis, thromboembolic events, and significant cardiovascular complications.

Control Number: 25-CCC-867-ACCLA

Session Title: Challenging Cases in Heart Failure and Cardiomyopathies

Session Time: Friday, September 19, 2025, 1:50 pm - 2:40 pm

Presentation Number: 13-07

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CHAGAS CARDIOMYOPATHY. A LATIN AMERICAN CARDIOVASCULAR ISSUE

Author Block: Laura Garza, Ulises Lopez-Peña, Mauricio Cortes, ISSSTE REGIONAL MONTERREY, MONTERREY, Mexico, ISSSTE SALTILLO, SALTILLO, Mexico

Background: American Trypanosomiasis is one of the most prevalent parasitic diseases in the continent. Without effective treatment, approximately 30% of patients develop cardiac complications, including heart failure, conduction disturbances and ventricular arrhythmias.

Case: We present a case of a 64-year-old female who presented acute heart failure, the initial ECG showed a complete right bundle branch block. During hospitalization she presented 2 episodes of ventricular tachycardia (VT). After initial management, a transthoracic echocardiography was performed, showing dilatated left ventricle with reduced ejection fraction (28%) and severe mitral regurgitation.

Abstract Body: **Decision-making:** The diagnostic approach was first to rule out ischemic etiology. A coronary angiography was performed, identifying a fistula communicating left main with left pulmonary artery, while trying to cannulate the fistula, a dissection was observed on the proximal segment. A covered stent was placed on the dissection zone, excluding the fistula with posterior optimization with a balloon. The severe mitral regurgitation was treated with Mitra clip implantation. Due to the characteristics of the myocarditis and the evidence of VT, an implantable cardioverter-defibrillator with resynchronization therapy was placed. Posterior transthoracic echocardiogram showed an improvement in ejection fraction (37%), spontaneous contrast inside the left ventricle and a diminution of mitral regurgitation. Serology was performed, testing positive for

Trypanosoma cruzi, establishing Chagas cardiomyopathy as diagnostic.

Conclusion: The generalized enlargement and wall motion abnormalities, condition the development of arrhythmogenic cardiomyopathy, heart failure and valvular insufficiencies. The alterations in microcirculation cause atypical chest pain. The impact of cardiac consequences of Chagas disease involves an a multidisciplinary public health, the treatment at the acute infection can prevent the development of cardiac complications, therefore optimizing the use of resources and improving quality of life

Control Number: 25-CCC-647-ACCLA

Session Title: Challenging Cases in Heart Failure and Cardiomyopathies

Session Time: Friday, September 19, 2025, 1:50 pm - 2:40 pm

Presentation Number: 13-09

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: ERDHEIM-CHESTER DISEASE MASQUERADING HEART FAILURE: WHEN INFILTRATIVE SYSTEMIC DISEASE DEFIES PARADIGMS

Manuel Mallol-Simmonds, Iván Canete, Alfredo Parra-Lucarés, Cristian

Author Block: Avila, Marcelo Claudio Llancaqueo, University of Chile's Clinical Hospital, Santiago, Chile

Background: HFpEF is a common but diagnostically challenging syndrome. Erdheim-Chester disease (ECD), a rare histiocytic disorder, can mimic key features of HFpEF, complicating accurate differentiation.

Case: A 70 y-o male with hypertension, diabetes, and former tobacco use presented to the emergency department with dyspnea and orthopnea.

Chest X-ray showed bilateral pleural effusions. Thoracic computed tomography (CT) angiography excluded pulmonary embolism but confirmed the effusions and revealed signs of pleural inflammation. NT-proBNP was mildly elevated. Transthoracic echocardiogram demonstrated preserved left ventricular ejection fraction, anterior mid-apical hypokinesia and global

Abstract Body: longitudinal strain of -17%. Pleural effusion analysis revealed a mononuclear exudate. Coronary angiography was performed, revealing severe stenosis in the left anterior descending and right coronary arteries, with a left ventricular end-diastolic pressure (LVEDP) of 11 mmHg. Due to lack of clinical improvement despite low LVEDP, a pleural biopsy was performed, which showed lymphoplasmacytic infiltration. Subsequent abdominal and pelvic CT revealed soft tissue infiltration around the kidneys and retroperitoneum. 18FDG-PET demonstrated hypermetabolic activity in the pericardium, long bones, retro-orbital space, and perirenal regions. A bone biopsy confirmed Erdheim-Chester disease. BRAF-V600E mutation testing was negative. Treatment with interferon-alpha was initiated,

resulting in progressive clinical improvement. Revascularization was deferred pending response to optimized medical therapy.

Decision-making: This case highlights how ECD may mimic HFpEF in a patient with significant cardiovascular comorbidities, leading to diagnostic anchoring. The presence of pleural effusions, segmental wall motion abnormalities, and persistent symptoms despite optimized therapy challenged the initial diagnosis. Multimodal imaging and histologic confirmation were essential to establish the true etiology.

Conclusion: ECD should be suspected in HFpEF cases with systemic features or poor therapeutic response, where advanced imaging may reveal its underlying presence.

Control Number: 25-CCC-891-ACCLA

Session Title: Challenging Cases in Heart Failure and Cardiomyopathies

Session Time: Friday, September 19, 2025, 1:50 pm - 2:40 pm

Presentation Number: 13-11

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FAVORABLE POST-TRANSPLANT COURSE IN SCN5A-RELATED CARDIOMYOPATHY: PRESERVED GRAFT FUNCTION WITHOUT SIGNIFICANT REJECTION

Alejandro Marino, Ángel A. García, Diego A. Perez Covo, Diego Ortega-

Author Block: Gomez, Emilio J. Juan Guárdela, Hospital Universitario San Ignacio, Bogotá, Colombia, Pontificia Universidad Javeriana, Bogotá, Colombia

Background: SCN5A mutations are a rare cause of dilated cardiomyopathy, often linked to arrhythmogenic phenotypes. In some cases, they cause progressive heart failure without major arrhythmias, necessitating heart transplantation (HTx). This case illustrates a stable post-HTx course in genetically determined cardiomyopathy without significant rejection.

Case: A 58-year-old man with end-stage heart failure due to SCN5A mutation-associated cardiomyopathy and no history of sustained ventricular arrhythmias underwent orthotopic HTx in September 2023. Pre-transplant LVEF was 10%. In February 2024, he developed tricuspid valve endocarditis requiring surgical replacement with a 31 mm bioprosthesis. Eighteen months post-HTx, he reported NYHA II symptoms without congestion. NT-proBNP was 237 pg/mL; tacrolimus levels were therapeutic (5.6 ng/mL). Echocardiography showed preserved biventricular function (LVEF 55-60%), normal prosthetic valve function, and no pericardial effusion. Coronary angiography revealed mild allograft vasculopathy without flow-limiting lesions. Endomyocardial biopsy showed grade 1R rejection only, without necrosis or fibrosis. His 6-minute walk distance was 388 meters.

Decision-making: This case highlights the need to recognize genetic cardiomyopathies as a distinct pre-transplant entity with implications for

post-transplant risk. Absence of life-threatening arrhythmias despite an SCN5A mutation contrasts with Brugada or overlap phenotypes. Post-HTx, the patient maintained excellent graft function without clinically significant rejection despite valve replacement. A comprehensive, multidisciplinary follow-up—including tailored immunosuppression and neurohormonal therapy—supported recovery.

Conclusion: Patients with SCN5A-related dilated cardiomyopathy can undergo successful HTx and maintain long-term stability. Absence of arrhythmic events pre-HTx and low-grade rejection post-HTx suggest a favorable trajectory in this subset. Genetic etiologies should be integrated carefully into transplant evaluation and post-transplant care planning.

Control Number: 25-CCC-400-ACCLA

Session Title: Challenging Cases in Valvular Diseases

Session Time: Friday, September 19, 2025, 3:50 pm - 4:40 pm

Presentation Number: 16-04

Topic 1: Valvular Diseases

Publishing Title: HYBRID AND SURGICAL REPAIR OF UNDIAGNOSED AORTIC COARCTATION IN A YOUNG ADULT WITH BICUSPID VALVE AND ASCENDING AORTIC ANEURYSM

Author Block: Jeniseth Atencio, Essau De Leon, Pedro Echeverria, Alfredo Matos, Oscar Barnes, Edgar Aviles, Jose Aguirre, Centro Nacional Especializado Cardiovascular y Toracico, Panama, Panama

Background: Coarctation of the aorta (CoA) in adults often presents as uncontrolled hypertension, diminished femoral pulses, or heart failure. Many remain asymptomatic unless hypertension is severe.

Case: A 33-year-old woman with a two-year history of exertional dyspnea, difficult-to-control hypertension, and lower limb claudication was evaluated. ECG showed left ventricular hypertrophy. Transthoracic echocardiography revealed a bicuspid aortic valve without dysfunction and a 59 mm ascending aortic aneurysm. CT confirmed focal aortic arch narrowing (18 mm) distal to the left subclavian artery and a patent ductus arteriosus (0.3 cm). (Fig A,B)

Decision-making: A hybrid approach was chosen due to body surface area, anatomy, and patient preference. A covered NuMed stent (39 mm) was successfully implanted via catheterization (Fig C). Six months later, she underwent ascending aortic replacement with a valved conduit (Fig D). Postoperative recovery was uneventful; follow-up showed a functioning valve and symptom resolution.

Conclusion: This case highlights surgical correction as an effective strategy for adult CoA, improving hypertension and long-term outcomes.

Abstract Body:

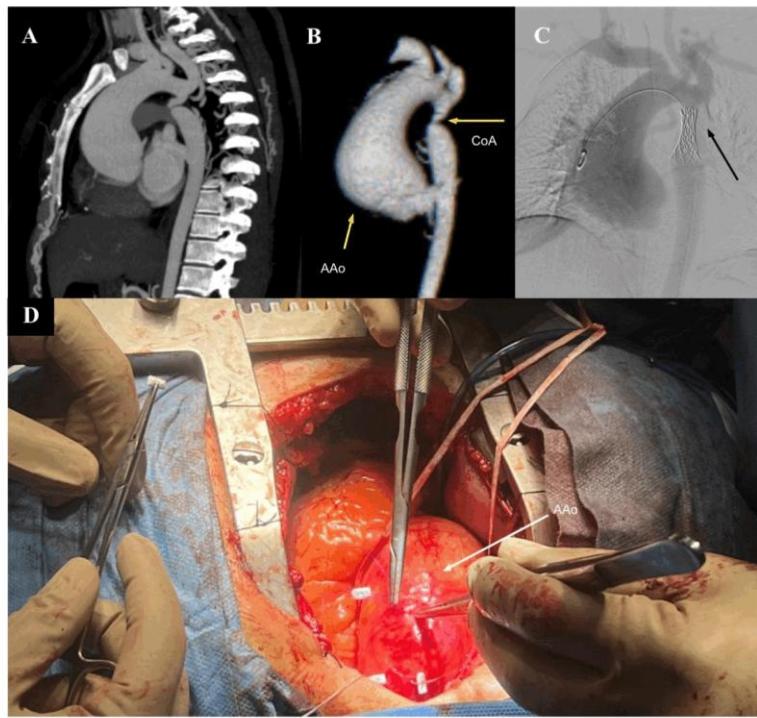


Figure 1 This case highlights the diagnosis and management of aortic coarctation (CoA) associated with an ascending aortic aneurysm (AAo). (A) CT angiography reveals a dilated AAo and severe narrowing distal to the left subclavian artery. (B) 3D reconstruction provides spatial orientation of the defect. (C) Fluoroscopic LAO view shows successful deployment of an endovascular stent in the descending aorta. (D) Intraoperative image demonstrates open surgical repair of the AAo.

Control Number: 25-CCC-345-ACCLA

Session Title: Challenging Cases in Valvular Diseases

Session Time: Friday, September 19, 2025, 3:50 pm - 4:40 pm

Presentation Number: 16-06

Topic 1: Valvular Diseases

Publishing Title: LOW GRADIENT PROTHESIS PATIENT MISMATCH IN A PEDIATRIC PATIENT WITH CONGENITAL HEART DISEASE

Author Block: Héctor Miguel Jiménez Vargas, Alejandra Iturralde Chavez, Clara A. Vazquez Antona, Ana Laura Trujeque Ruiz, Instituto Nacional de Cardiología Ignacio Chavez, Mexico City, Mexico

Background: Echocardiographic evaluation of mechanical prostheses is complicated in pediatric patients due to the increased complexity in the context of congenital heart disease.

Case: We present the case of a 16-year-old patient with a history of critical aortic stenosis who underwent aortic valvuloplasty two times. Her aortic valve was subsequently replaced with a prosthesis at four yo. She returned for follow-up at sixteen yo, presenting with functional class deterioration, cyanosis, and syncope. An echocardiogram was performed, concluding that the aortic valve prosthesis had no paravalvular leaks, adequate disk mobility, severe mitral regurgitation due to annulus dilation, ventricular dilation, borderline systolic function with LVEF at 53%. An evaluation was performed to assess the prosthesis, revealing abnormal AT, EOA, and EOAI, with decreased stroke volume and cardiac output. We concluded that there was a prosthesis-patient mismatch with a normal gradient secondary to low flow due to severe mitral regurgitation.

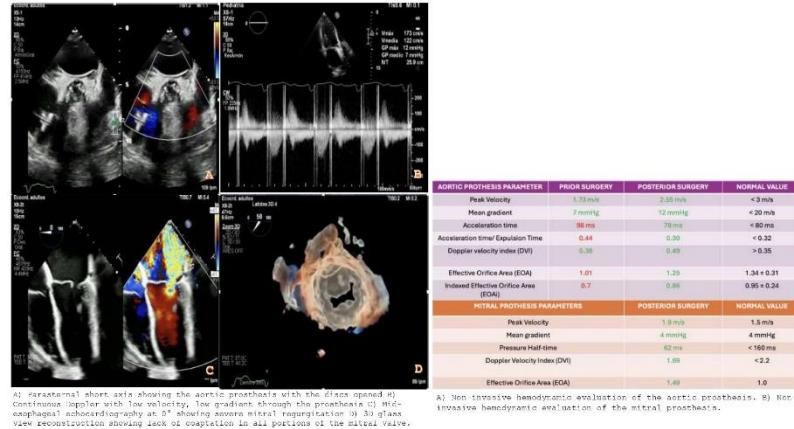
Decision-making: The decision was made to perform aortic valve replacement with a bigger prosthesis and mitral valve replacement, improving antegrade flow without increasing the gradient.

Conclusion: Although echocardiographic evaluation is complicated in the context of valve prostheses and multiple valve regurgitations, we must

Abstract

Body:

thoroughly evaluate each case to make the most appropriate decision regarding the surgical management of the valvular heart disease.



Control Number: 25-CCC-496-ACCLA

Session Title: Challenging Cases in Valvular Diseases

Session Time: Friday, September 19, 2025, 3:50 pm - 4:40 pm

Presentation Number: 16-08

Topic 1: Valvular Diseases

Publishing Title: FROM INNOVATION TO IMPACT: FIRST SUCCESSFUL MITRAL VALVE-IN-VALVE EDWARDS SAPIEN 3 ULTRA RESILIA IN LATIN AMERICA: A CASE REPORT

Author Block: Sergio-Armando Domínguez-Salazar, Nitzha Andrea Najera-Rojas, Jorge Torres Sanchez, Magali Herrera, Marco Alcántara-Meléndez, Médica Sur, CDMX, Mexico

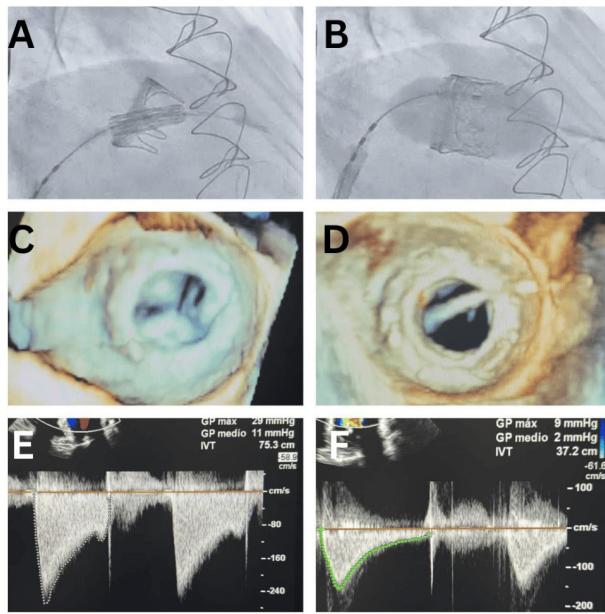
Background: Using the Edwards SAPIEN 3 Ultra RESILIA valve is a promising option for transcatheter mitral valve replacement (TMVR) in selected high-risk patients, offering excellent hemodynamic outcomes with appropriate patient selection and imaging.

Case: A 72-year-old woman with prior biological mitral valve replacement (2010), presented with chest oppression. ECG showed atrial fibrillation with rapid ventricular response. Echocardiography revealed LVEF 60%, biatrial dilation, mild tricuspid regurgitation, RV dilation, and a mitral bioprosthesis with an orifice area of 1.5 cm² and a mean gradient of 12 mmHg. AngioCT: CAD-RADS 0; thickened anterior leaflet with hypoattenuation and restricted mobility. CHA₂DS₂-VA and HAS-BLED scores were both 3. Due to progressive deterioration and high surgical risk, a successful valve-in-valve procedure was done with a 26 mm SAPIEN 3 Ultra RESILIA valve. Final mean gradient: 2 mmHg; mitral area: 2.5 cm² (3D echo). Patient was discharged stable and asymptomatic.

Decision-making: Though designed for aortic valve failure, this valve has shown effectiveness in mitral valve-in-valve procedures in high-risk patients. This case marks the first successful procedure of its kind in Latin America.

Conclusion: TMVR with Edwards SAPIEN 3 is a feasible option in selected

high-risk patients. This technology will provide greater durability to biological prostheses, which changes the treatment paradigm for patients with valvular Heart disease.



Control Number: 25-CCC-843-ACCLA

Session Title: Challenging Cases in Valvular Diseases

Session Time: Friday, September 19, 2025, 3:50 pm - 4:40 pm

Presentation Number: 16-10

Topic 1: Valvular Diseases

Publishing Title: BRIDGING GAPS IN STRUCTURAL HEART CARE: ACUTE MITRAL REGURGITATION TREATED WITH TEER IN A PUERTO RICAN MALE

Author Block: Luis Acevedo Aquino, Darcy Diago, Alejandro Jose Lopez-Mas, Damas Hospital, Ponce, PR, USA, Centro Medico Episcopal San Lucas, Ponce, PR, USA

Background: Mitral valve surgery is the standard treatment for severe symptomatic mitral regurgitation (MR). However, only 12 cardiothoracic surgeons for the entire Puerto Rican population, Transcatheter Edge-to-Edge Repair (TEER) has become a crucial option for non-surgical candidates with acute heart failure (AHF) due to MR.

Case: 75yo male with a history of hypertension presented with acute shortness of breath, edema, palpitations, and orthopnea. He had pulmonary crackles, elevated pro-BNP, and troponin. He was diagnosed with AHF. A transthoracic echocardiogram (TTE) showed a preserved left ventricular ejection fraction, a flail-thickened myxomatous posterior mitral leaflet, and severe MR. His condition deteriorated with acute volume overload, requiring non-invasive ventilation.

Decision-making: Heart team discussion deemed the patient unsuitable for surgery. Due to the patient's critical condition, a successful A2P2 TEER procedure was performed, involving the deployment of two devices, resulting in a dramatic reduction of MR to trace levels with a non-measurable vena contracta. He was discharged two days after the procedure. At 30-day follow-up, TTE showed trace residual MR, with complete resolution of symptoms and improvement in functional status.

Conclusion: This case highlights the effectiveness of TEER in high-risk

Abstract Body:

patients with decompensated AHF and severe MR. Emphasizing its role in managing acute severe MR in non-surgical candidates, especially in underserved populations.

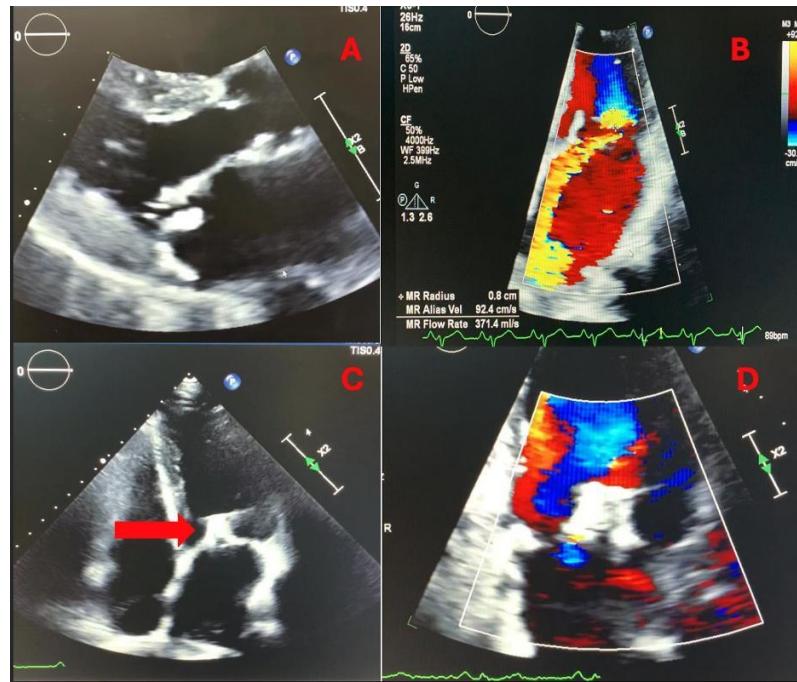


FIGURE 1. Transthoracic Echocardiography Pre- and Post-Transcatheter Edge-to-Edge Repair.

Parasternal Long Axis view of Flail Posterior leaflet of Mitral Valve (A). Color Doppler of Severe Mitral Valve Regurgitation with Coanda effect (B). Four Chamber View of TEER devices in place from A2P2 (C). 30-day post procedure Color Doppler with residual MR (D). (Arrow) A2P2 TEER devices (Edwards Lifesciences PASCAL Ace).

Control Number: 25-CCC-183-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-01
01

Topic 1: Cardiac Arrhythmias

Publishing Title: ABLATION OF MONOMORPHIC VENTRICULAR TACHYCARDIA IN HYPERTROPHIC CARDIOMYOPATHY: WHAT IS THE BEST DECISION?

Author Block: Carmen Alicia Sánchez Contreras, Jose Angel Manzanarez, Arturo Mas, Santiago Nava, Instituto Nacional de Cardiología, Ciudad de México, México

Background: Hypertrophic cardiomyopathy (HCM) is a structural condition that can lead to ventricular tachyarrhythmias

Case: A 55-year-old male with a history of non-obstructive asymmetric septal HCM and an ICD was admitted due to palpitations, dyspnea, and chest discomfort. ECG showed non-sustained monomorphic VT. ICD interrogation reported 69 VT episodes. Despite medical therapy optimization, VT persisted, leading to an ablation. Electroanatomical mapping (CARTO SOUND) localized the arrhythmogenic focus on the

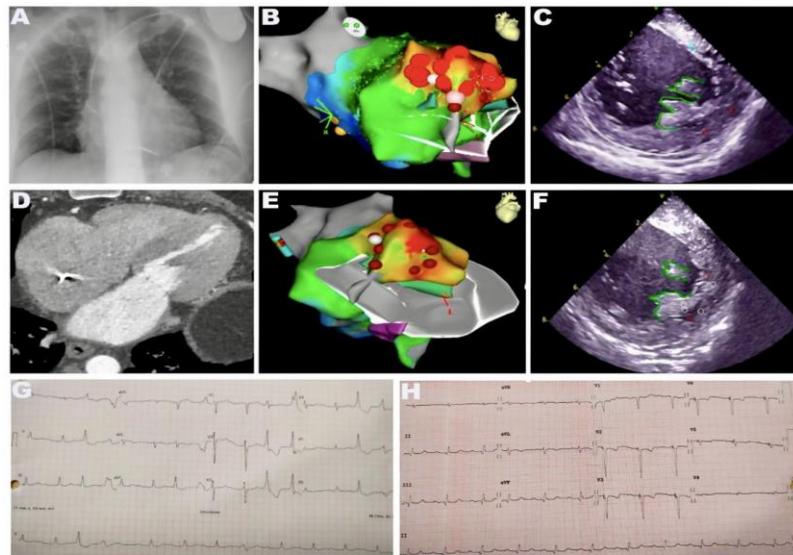
Abstract Body: anterolateral papillary muscle. Pace mapping confirmed 91% morphology match, with -15 ms prematurity. Intracardiac echocardiography (ICE) guided ablation.

Decision-making:

The literature reports VT cases associated with apical aneurysm, but papillary muscle-originated VT is exceptionally rare. In this case, electroanatomic mapping precisely localized the arrhythmogenic focus, with a 91% morphology match in pace mapping and a prematurity of -15 ms. Intracardiac echocardiography (ICE)-guided ablation effectively eliminated the arrhythmia. Previous studies have reported successful VT elimination in 73% of patients with similar conditions, reinforcing the usefulness of

ablation in specialized centers

Conclusion: HCM can involve papillary muscle hypertrophy, predisposing patients to ventricular arrhythmias. While rare, monomorphic VT may be refractory to medical therapy. Radiofrequency ablation is a safe and effective therapeutic alternative in specialized centers.



A: Chest X-ray in P-A view, showing the presence of a biventricular ICD device. **B and E:** Electroanatomic activation map where the area shows early activation, with the ablation points marked on the anterolateral papillary muscle. **C and F:** ICE image showing the papillary muscles with increased echogenicity. **D:** Axial CT slice showing all four cardiac chambers with LV hypertrophy. **G and H:** Pre- and post-ablation surface ECG, respectively. ICE: Intracardiac echocardiogram. CT: Computed tomography. LV: Left ventricle. ECG: Electrocardiogram.

Control Number: 25-A-195-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-02

02

Topic 1: Cardiac Arrhythmias

Publishing Title: COMPARISON OF THE EFFICACY AND SAFETY OF FACTOR XI INHIBITORS WITH DOACS IN ATRIAL FIBRILLATION: A SYSTEMATIC REVIEW AND META-ANALYSIS

Author Block: Iván García-Gómez, Marcela Vasconcelos Montenegro, Luiz Claudio Behrmann Martins, Hospital Nacional Arzobispo Loayza, Lima, Peru

Background: Anticoagulation is the pillar in the prevention of embolic stroke and thromboembolism in AF. DOACs are the drugs of choice in most eligible patients with AF. However, the bleeding is still a concern. Recent RCTs show that anticoagulation with factor XI inhibitors may have a lower risk of bleeding compared to DOACs.

Methods: We systematically searched in Medline, Cochrane and Embase databases from December 1, 2024, to January 31, 2025, limiting searches to phase 2 and 3 RCTs of patients with AF who were randomised to receive factor XI inhibitors (Abelacimab or Asundexian) and DOACs (Rivaroxaban or Apixaban), and trials in which efficacy and safety outcomes were reported. The main outcomes were stroke, systemic embolism, major bleeding, clinically relevant non-major bleeding and mortality. We calculated RD and 95% CIs for each outcome. Heterogeneity was assessed using the I^2 statistic.

Results: Three RCTs (16.852 participants) met the inclusion criteria, with 8.777 patients in the factor XI inhibitors group and 8.075 in the DOACs group. The average follow-up time was 47.78 (12-109.2) weeks. All trials reported major bleeding reduction in the group taking factor XI inhibitors when compared to the control (RD -0.011; CI95% -0.020 to -0.001), but with

Abstract Body:

high heterogeneity between the studies ($I^2=83.39\%$). There was a statistically significant reduction in cases of clinically relevant non-major bleeding in patients using factor XI inhibitors (RD -0.010; CI95% -0.014 to -0.007; $I^2= 0\%$). Pooled analysis showed a significant reduction in the outcome of ischemic stroke (RD -0.008; CI95% -0.011 to -0.006) with low heterogeneity between the studies ($I^2= 0\%$), but a small effect. None of the trials showed a statistically significant difference for the outcomes of systemic embolism (RD 0.001; CI95% -0.002 to 0.004; $I^2=0\%$) and all-cause mortality (RD -0.002; CI95% - 0.005 to 0.001; $I^2=0\%$), with highly consistence of the results.

Conclusion: This meta-analysis shows that factor XI inhibitors are associated with fewer bleeding events and stroke compared with DOACs. Unfortunately, no significant differences were observed in systemic embolism or mortality.

Control Number: 25-A-203-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-03
03

Topic 1: Cardiac Arrhythmias

Publishing Title: BICAMERAL ENDOCARDIAL PACEMAKER IMPLANT WITH PHYSIOLOGICAL STIMULATION OF THE LEFT BRANCH THROUGH PERSISTENT LEFT CAVAL VEIN, CASE REPORT

Author Block: Jair Arevalo, María G. Barradas, Kevin A. Fierros, Carlos A. Torres, Moises Levinstein, Alberto A. Gálvez, Santiago R. Nava, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico

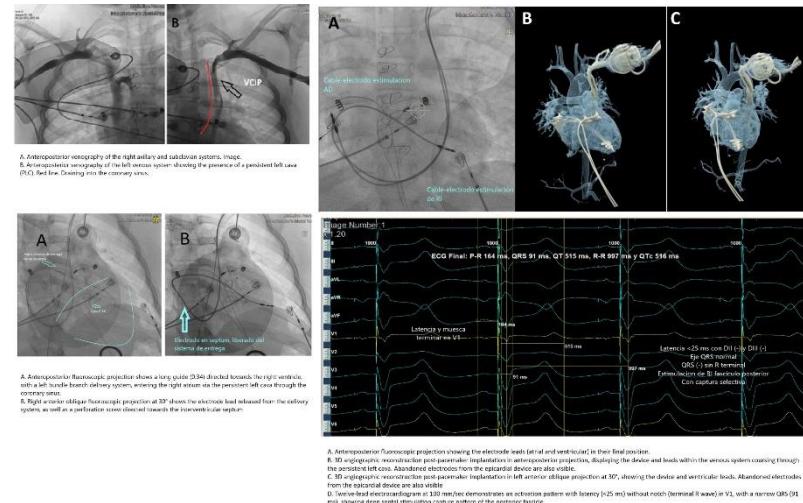
Background: A patient with a history of ventricular septal defect and patent ductus arteriosus underwent surgical correction but developed postoperative complete AV block. They received a dual-chamber epicardial pacemaker but presented with atrial lead dysfunction pacemaker implantation with physiological left bundle branch pacing was recommended

Methods: Right venous angiography revealed subclavian vein thrombosis with collateral vessel formation. Left venous angiography showed the left vena cava draining into the coronary sinus. A left axillary vein was cannulated, and the left bundle branch delivery system was advanced through the left vena cava and coronary sinus. It was then positioned in the right atrium, creating a loop along the lateral wall to allow the distal end to reach the tricuspid valve. This maneuver directed and secured the ventricular lead to the interventricular septum. The atrial lead was placed on the superior lateral wall of the right atrium. The leads were connected to the generator

Results: The left bundle branch area was captured in the posterior

fasciculus. The patient reported increased tolerance for physical activity and improved performance in daily activities without experiencing fatigue

Conclusion: venous malformations can complicate pacemaker implantation. Improving implantation techniques is crucial to overcome these challenges. In this case, physiological stimulation improved the patient's quality of life



Control Number: 25-CCC-235-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-04

04

Topic 1: Cardiac Arrhythmias

Publishing Title: FLECAINIDE TOXICITY AFTER NEPHRECTOMY: A CAUSE FOR CONCERN

Author Block: Alex J. Nusbickel, Stephen Petty, Danielle Petty, William M. Miles, University of Florida College of Medicine, Gainesville, FL, USA

Background: Elevated plasma concentrations of flecainide can predispose patients to arrhythmias. Flecainide elimination in patients with renal failure may vary. In this case, the authors describe the course of a patient who developed flecainide toxicity following nephrectomy despite being on a stable dose previously while on peritoneal dialysis.

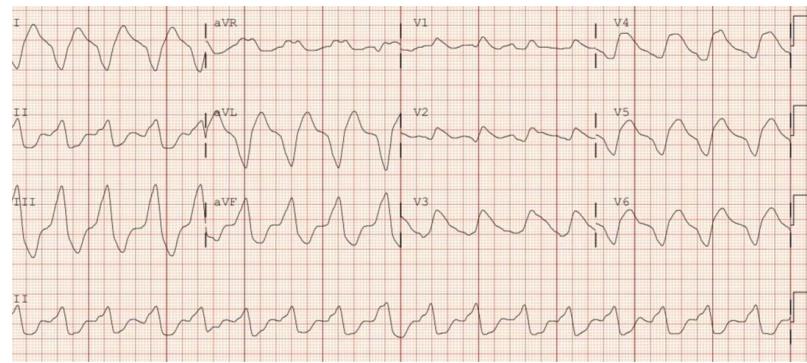
Case: A 62-year-old with atrial fibrillation on flecainide and ESRD secondary to polycystic kidney disease on peritoneal dialysis was admitted for bilateral nephrectomy for pain attributed to polycystic kidneys. Flecainide was

Abstract Body: continued at the previous dose. After surgery, she was transitioned to hemodialysis and experienced multiple syncopal episodes. An EKG was obtained, demonstrating a wide-complex sinusoidal pattern (Figure 1).

Decision-making: Flecainide was discontinued, with concern for elevated concentration following nephrectomy and dialysis transition. Ultimately, the patient developed ventricular fibrillation and was unable to be resuscitated. Autopsy findings confirmed a plasma concentration of flecainide of 13 mcg/mL, greater than ten times the therapeutic level.

Conclusion: Flecainide conveys a significant proarrhythmic risk to patients with renal failure. The pharmacokinetic impact of nephrectomy and varying dialysis methods is not well characterized and may confer unpredictable

changes in concentration. In this population, careful monitoring and consideration for discontinuation or dose reduction should be cautioned.



Control Number: 25-CCC-247-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-05

05

Topic 1: Cardiac Arrhythmias

Publishing Title: SUSTAINED VENTRICULAR TACHYCARDIA AS THE PRESENTING SYMPTOM: A CASE OF CARDIAC SARCOIDOSIS CLINICALLY MASQUERADING AS ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY

Author Block: Mohamed Ibrahim, Parag C. Patel, Leslie T. Cooper, Anca Chiriac, Mayo Clinic, Jacksonville, FL, USA

Background: Cardiac sarcoidosis (CS) occurs in 5-10% of systemic sarcoidosis cases, causing arrhythmias in 30% of cases. Subtle symptoms often mimic arrhythmogenic right ventricular cardiomyopathy (ARVC) and other conditions. Prompt diagnosis via advanced imaging reduces sudden cardiac death risk.

Case: A 51-year-old man presented after several hours of feeling unwell. He was in monomorphic ventricular tachycardia (VT) and required sedation and cardioversion. Four years earlier, he had presumed viral myocarditis with full LV recovery. Echocardiogram showed severe right-predominant dilation and RV dysfunction. ECG showed RBBB, T-wave inversions in V1-V3, and possible epsilon waves. Cardiac CT confirmed severe RV cardiomyopathy, raising concern for ARVC (Panels A-D). MRI was contraindicated due to retained cervical shrapnel.

Decision-making: EP studies induced poorly tolerated VT that required repeated cardioversions. Substrate mapping revealed disease and fragmentation in the mid-RV septum (purple dots, Panel E); pace mapping localized the exit to the mid-inferoseptum (blue dots, Panel E). The area was homogenized, and a single-chamber ICD was placed. Genetic testing was

Abstract Body:

negative. PET showed FDG uptake in the mid-inferoseptum, basal anteroseptum, and spleen. Splenic biopsy confirmed noncaseating granulomas, consistent with sarcoidosis (Panel F).

Conclusion: This case underscores the role of multimodal imaging and biopsy in distinguishing CS from ARVC and guiding timely therapy.

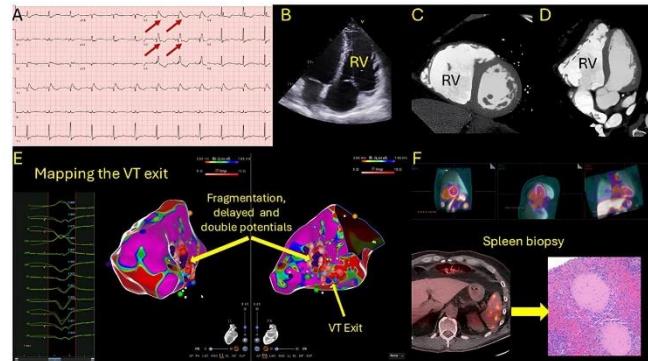


Figure 1. ECG demonstrated right bundle branch block, T-wave inversion, and significant fragmentation of the terminal portion of the QRS in right precordial leads (Panel A). Echocardiogram (Panel B) and cardiac CT (Panels C and D) demonstrated severe right ventricular (RV) enlargement, with multiple apical and free wall aneurysms and severe RV systolic dysfunction. At the time of VT ablation, there was significant disease and fragmentation over the RV septum. Tachycardia exited in the mid RV inferoseptum (Panel E). PET scan 3 months post ablation demonstrated mild FDG uptake in the mid inferoseptum and basal anteroseptum, and significant uptake in the spleen. Splenic biopsy demonstrated noncaseating granulomas (Panel F).

Control Number: 25-CCC-279-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-06

06

Topic 1: Cardiac Arrhythmias

Publishing Title: NOT SO CARDIO-FRIENDLY ANTIDEPRESSANT: BUPROPION-INDUCED QTc PROLONGATION FROM INTENTIONAL OVERDOSE

Author Block: Jorge Pimentel, Prince Darko, Moatamn Skuk, Baffour Otchere, Brice Njobe, Piedmont Athens Regional, Athens, GA, USA

Background: The patient is a 26-year-old female past medical history of previous suicidal ideations and attempts that presented to the ED after ingesting 3 bottles of bupropion and 2 bottles of clonazepam on a suicidal attempt.

Case: Patient presented to the ED an hour after ingestion. Poison control was contacted right away who recommended to initiate activated charcoal and polyethylene glycol. On initial evaluation the patient was talkative and answering questions. Alert and oriented. Initial evaluation with an EKG showed sinus and regular rhythm, with a QTc of 455 ms. An hour after presentation patient developed palpitations and stat EKG showed sinus tachycardia with a new QTc of 655 ms. Patient rapidly developed lethargy and the decision was made to proceed with intubation for airway protection.

Decision-making: The patient was admitted to ICU continuing previously described therapy. Bicarbonate drip was added to the regimen with frequent monitoring of the EKGs. During 3 days of hospitalization QTc progressively decreased from 655 to 413 ms. On the last day of admission QTc measured 441 ms and bicarbonate drip was stopped. Follow-up EKGs showed normalization of QTc.

Conclusion: Controversy exists regarding the optimal management of

Abstract Body: presentation patient developed palpitations and stat EKG showed sinus tachycardia with a new QTc of 655 ms. Patient rapidly developed lethargy and the decision was made to proceed with intubation for airway protection.

bupropion cardiotoxicity, especially QRS and QTc interval prolongation, because the mechanism of cardiotoxic effects appears dissimilar to tricyclic antidepressants, which cause sodium channel blockade and improve with sodium bicarbonate treatment.

Control Number: 25-A-219-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-07

07

Topic 1: Cardiovascular Disease Prevention

Publishing Title: CARDIOEMBOLIC STROKE IN MEXICAN POPULATION: CLINICAL DATA, RISK FACTORS AND OUTCOME FROM THE IGNACIO CHAVEZ STROKE DATA BANK

Aurelio Méndez-Domínguez, Pedro Gil Landeros, Jorge Alejandro Arias-

Author Block: Vega, National Institute of Cardiology "Ignacio Chávez", Mexico City, Mexico, Latin American University-Cuernavaca Campus, Cuernavaca, Mexico

Background: Stroke and heart disease are the major cause of death among mexican population. Despite this fact, few information is available regarding stroke in Mexico and no studies have been made focusing on cardioembolism. This is the third registry made in Mexico and the first focused on cardioembolic stroke.

Methods: We retrospectively analyzed 755 patients records from 1992-2024, inclusion criteria included: 1) Clinical stroke syndrome, 2)Neuroimaging confirming stroke, 3) Complete etiological approach including cardiac evaluation and imaging. Data was captured on RedCap.

Abstract Body: **Results:** We found a nearly equal distribution among males and females, most patients were from urban areas (68.87%, N=520); the most prevalent hereditary factor was hypertension (32.71% N=247). Analysis by age subgroups showed different etiologies and mechanisms: 49 cases were identified in patients under 18 years old, in whom the main cause for stroke was congenital heart disease. The 709 cases in adults, the main causes of cardioembolism were rheumatic heart disease, valvular disease, coronary syndromes, atrial fibrillation and congenital heart disease. The recurrence and mortality rates were 35% and 15.28%, respectively.

Conclusion: Cardioembolic stroke is one of the most serious and fatal complications of heart disease. The high prevalence of heart disease in Mexico significantly increases the risk of stroke of cardioembolic origin. The severity of stroke and outcomes measured as recurrence rate or mortality are closely related to the degree of heart damage with neurological results in patients with overlapping heart conditions.

Control Number: 25-A-220-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-08

08

Topic 1: Cardiovascular Disease Prevention

Publishing Title: IDENTIFICATION OF TREATMENT ADHERENCE PATTERNS IN HYPERTENSIVE PATIENTS FROM MIDDLE-HIGH INCOME COUNTRIES OF CENTRAL AMERICA AND THE DOMINICAN REPUBLIC

Author Block: RENATO SANTA LUCE, Elva Celeste Palma Vega, Diana C. Buitrago, Menarini Group, Guatemala, Guatemala, IQVIA, Guatemala, Guatemala

Background: Adherence to treatment is a key factor in the control of hypertension. This study aims to identify adherence patterns and determine the influence of social and clinical variables.

Methods: We conducted a descriptive, observational, cross-sectional survey-based study in a group of 361 hypertensive patients from three middle-high income countries of Central America (Guatemala, Costa Rica, Panama), and the Dominican Republic, who met the criteria to complete the semi-structured web survey, between August and October of 2023.

Abstract Body: These criteria included adults diagnosed with hypertension, currently on pharmacological treatment, and belonging to a middle-high socioeconomic status. Sociodemographic data, clinical characteristics, type of pharmacological treatment, adherence patterns, tobacco use and patient support data were collected. We defined two groups: patients who reported non-adherence and adherent patients. To determine the odds ratio (OR) of presenting non-adherence patients, the OR for different variables were calculated, along with the corresponding p-values. All calculations were conducted using Python version 3.8.10.

Results: Among the whole group (mean age 40; 52.1% men and 47.9% women), non-adherence was reported by 67.9% of patients. We identified

two different adherence patterns between patients who reported non-adherence: 1) patients who modified the dose and 2) patients who omitted the dose. Variables that significantly decreased the odds of omitting the dose were having a caregiver (OR=0.60, p-value=0.021) and receiving an explanation from the treating physician of the consequences of not taking the medication (OR=0.56, p-value=0.047). Conversely, the odds of modifying the dose increased significant with the number of medications the patient has (OR=1.22, p-value=0.013).

Conclusion: This study contributes to the scarce literature on treatment adherence patterns in hypertensive patients in Central America and the Dominican Republic, highlighting the relevance of patient support and the crucial role of patient education in treatment adherence.

Control Number: 25-A-239-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-09

09

Topic 1: Cardiovascular Disease Prevention

Publishing Title: IMPACT OF TELEMEDICINE ON CARDIAC REHABILITATION PROGRAMS FOR PATIENTS WITH A HISTORY OF CARDIOVASCULAR DISEASE

Author Block: Jason Osorio, Mariane Castellanos, Ian D. Solis, Universidad Autónoma de Guadalajara, Guadalajara, Mexico

Background: Despite known mortality benefits of cardiac rehabilitation (CR), participation remains low (<30%). This study evaluates whether telemedicine-enhanced CR can overcome traditional barriers while maintaining or improving outcomes compared to center-based programs.

Methods: This systematic review follows PRISMA 2020 guidelines and uses the PICOT framework: adults with cardiovascular disease in CR programs (Population), receiving telemedicine-based CR (Intervention), compared to conventional CR (Comparator), with outcomes on quality of life and hospital readmissions (Outcomes) over at least 3 months (Time). We

Abstract Body: searched PubMed, Embase, Cochrane Library, Web of Science, and LILACS using MeSH terms and keywords related to telemedicine, cardiac rehab, and outcomes. Two reviewers independently screened studies and resolved discrepancies by consensus. We included RCTs and prospective observational studies. Data were extracted via a standardized form. Risk of bias was assessed using Cochrane (for RCTs) and Newcastle-Ottawa (for observational studies), with GRADE used to rate evidence certainty. Qualitative synthesis and meta-analysis were performed when appropriate. **Results:** Telemedicine CR showed superior results: a 31% reduction in 90-day readmissions (aOR 0.69, 95% CI 0.59-0.81, p<0.001), 18% higher completion rates (82.3% vs 64.1%, p=0.003), and comparable improvement

in peak VO₂ (+3.4 vs +3.1 mL/kg/min, p=0.21). Quality of life significantly improved (mean SF-36 physical component +5.2, p=0.01). Mean annual per-patient cost was reduced by \$1,483 (range \$951-\$1,865). Hybrid models combining telemonitoring with monthly onsite visits yielded optimal results (p<0.05 vs fully remote).

Conclusion: Telemedicine-based CR is not only non-inferior but superior to traditional CR in clinical, patient-centered, and economic outcomes. A tiered tele-CR approach tailored to patient risk profiles should be considered for integration into practice guidelines and reimbursement policies.

Control Number: 25-A-276-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-10
10

Topic 1: Cardiovascular Disease Prevention

Publishing Title: FRAILTY, CARDIOVASCULAR RISK, AND LIPIDIC GOALS: UNDERSTANDING THE LINK IN PRIMARY PREVENTION

Author Block: Cristian Orlando Porras Bueno, Jesús A. Beltran, Carolina Murgueitio, Ángel A. García, Pontifical Xavierian University, Bogota, Colombia, Hospital Universitario San Ignacio, Bogota, Colombia

Background: Frailty is common in older adults and has been associated with worse outcomes, including cardiovascular disease (CVD). However, limited data exist on its link to cardiovascular risk (CVR) in primary prevention and lipid target achievement.

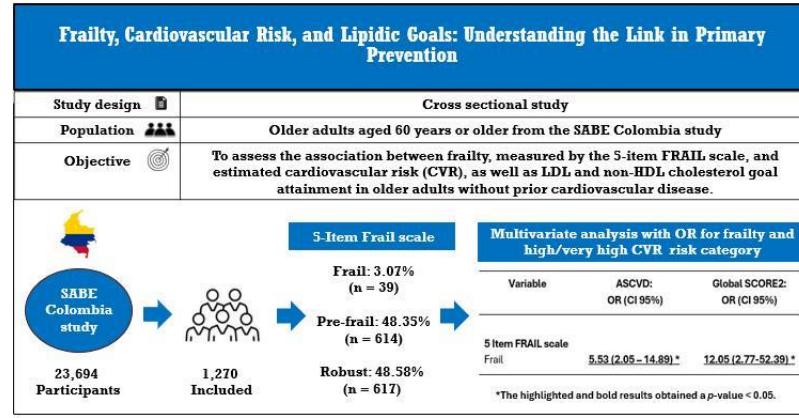
The aim of this study was to assess the association between frailty, measured by the 5-item FRAIL questionnaire, and estimated CVR, as well as LDL (cLDL) and non-HDL (cNoHDL) cholesterol goal attainment in older adults without prior CVD.

Abstract Body: **Methods:** Secondary analysis of adults aged ≥ 60 from the SABE Colombia study ($n=23,694$). Frailty status was classified as robust, pre-frail, or frail. CVR and lipid goal attainment were assessed using odds ratios and regression models.

Results: 1,270 individuals were included; 22,146 were excluded due to missing CVR data, and 278 for prior CVD. Frailty status: 48.58% robust, 48.35% pre-frail, and 3.07% frail. cLDL goal achievement ranged from 0.72% to 0.72-3.93%, cNoHDL was 9.60%. Frailty was associated with a high CVR category with an OR of 5.53 (95% CI 2.05-14.89, ASCVD 2013) and a very high CVR category with an OR of 12.05 (CI 2.77-52.39, SCORE2). Frailty was not

linked to lipid target attainment.

Conclusion: Over half of participants had pre-frailty or frailty. Frailty was associated with higher CVR but not with lipid goal achievement, underscoring the need for targeted interventions in this vulnerable group.



Control Number: 25-A-408-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-11

11

Topic 1: Cardiovascular Disease Prevention

Publishing Title: DIFFERENCES IN CORONARY CALCIUM SCORES OBTAINED BY CHEST CT IN LUNG CANCER PATIENTS BEFORE AND AFTER MEDIASTINAL RADIOTHERAPY

Author Block: Monserrat Mendoza, Jéssica Jocelyn Amador Cuenca, Sergio-Armando Domínguez-Salazar, Diana Romero, Diego Reyes-Castro, Médica Sur, Ciudad de México, Mexico

Background: Improved cancer survival has shifted attention to long-term cardiovascular risks, particularly accelerated atherosclerosis following mediastinal radiotherapy in lung cancer patients. Screening for coronary artery disease is currently endorsed by expert guidelines but lacks validation in clinical trials.

Methods: Retrospective, observational, comparative study. A search was conducted to identify patients over 18 years of age who had been diagnosed with lung cancer during 2019-2024 and who had undergone non-contrast chest CT both prior to and following the administration of a radiotherapy regimen.

Results: 30 patients were analysed where a significant increase in coronary artery calcification was observed after radiotherapy, particularly in the Left Main ($P=0.018$), Left Anterior Descending ($P=0.004$), and Right Coronary Arteries ($P=0.010$), as well as in total score ($P<0.001$), volume ($P<0.001$), mass ($P=0.033$), and (MESA score) ($P<0.001$). Severity of affected arteries also showed significant progression post-radiotherapy ($P<0.001$). A statistically significant negative correlation was identified between changes

in coronary artery calcification scores and atherosclerotic cardiovascular disease (ASCVD) risk ($r=-0.687$, $P<0.001$)

Conclusion: This study documented a significant difference in coronary artery calcification, assessed by non-contrast chest CT, in lung cancer patients before and after receiving mediastinal radiotherapy.

Differences in the baseline and post-radiotherapy calcium score.			
Variable	Baseline	Post-radiotherapy	P
Left main	28.4 (0-414)	46.2 (0-586)	0.018
Left Anterior Descending	105.9 (1003)	134.9 (0-1083)	0.004
Circumflex	60.2 (0-953)	66.9 (0-958)	0.083
Right Coronary Artery	116.2 (0-1896)	170 (0-2413)	0.010
Total	321.8 (0-330)	433.0 (0-3988)	<0.001
Volume	275.1 (0-2931)	376.9 (0-3450)	<0.001
Mass	35.7 (0-334)	45.1 (0-366)	0.033
MESA score	57.7 +/- 28.2	57 +/- 29.1	<0.001
Change in Coronary Artery Calcium Data and Reporting System (Cac-Drs), number of affected arteries and severity			
Variable	Baseline n (%)	Post-radiotherapy n (%)	P
Cac-Drs			
0	15 (50)	12 (40)	
A1	7 (23.3)	7 (23.3)	
A2	3 (10)	4 (13.3)	
A3	5 (16.7)	7 (23.3)	<0.001
Number of affected arteries			
0	15 (50)	12 (40)	
1	4 (13.3)	6 (16.7)	
2	3 (10)	5 (16.7)	
3	2 (6.7)	1 (3.3)	
4	6 (20)	7 (23.3)	<0.001
Severity			
None	15 (50)	12 (40)	
Mild	8 (26.7)	6 (20)	
Moderate	2 (6.7)	6 (20)	
Severe	5 (16.7)	6 (20)	<0.001

Control Number: 25-A-442-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-12

12

Topic 1: Cardiovascular Disease Prevention

Publishing Title: COMPARATIVE EFFICACY OF NON-STATIN LDL-C LOWERING THERAPIES IN STATIN-INTOLERANT PATIENTS: A NETWORK META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

Marcílio De Oliveira Filho, Flavyanne Salles Silva, Marina Azevedo Amaral, Suelen Queiroz, Ferreira Vasques Luana, Miguel Chaves Lenzi, Júlia Gonçalves Gadelha, Anísio Uchôa Leite Santana, de Paula Miranda Thaisa, Matheus Fernandes, Fernanda Medeiros Santos, Faculdade de Medicina de Barbacena, Barbacena, Brazil

Background: To evaluate and rank the efficacy of bempedoic acid, red yeast rice (RYR), and pravastatin in reducing LDL-C levels in statin-intolerant or statin-limited patients using a frequentist network meta-analysis approach.

Methods: We systematically reviewed six randomized controlled trials (RCTs), totaling 21,574 patients, assessing LDL-C reduction in statin-intolerant populations. A frequentist network meta-analysis model was applied using placebo as the reference. The network included 4 interventions and 3 direct pairwise comparisons across 6 two-arm studies. Mean differences (MDs) in LDL-C (mg/dL) were extracted and synthesized using a random effects model. Inconsistency and heterogeneity were assessed.

Results: Red yeast rice demonstrated the greatest LDL-C reduction compared to placebo (MD: -36.24 mg/dL; 95% CI: -48.34 to -24.13), followed by bempedoic acid (MD: -24.11 mg/dL; 95% CI: -37.90 to -10.32) and pravastatin (MD: -3.20 mg/dL; 95% CI: -23.91 to 17.51). Between-study

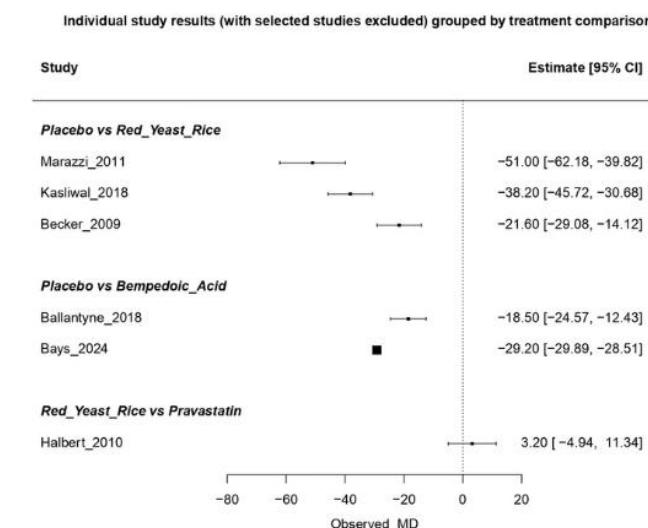
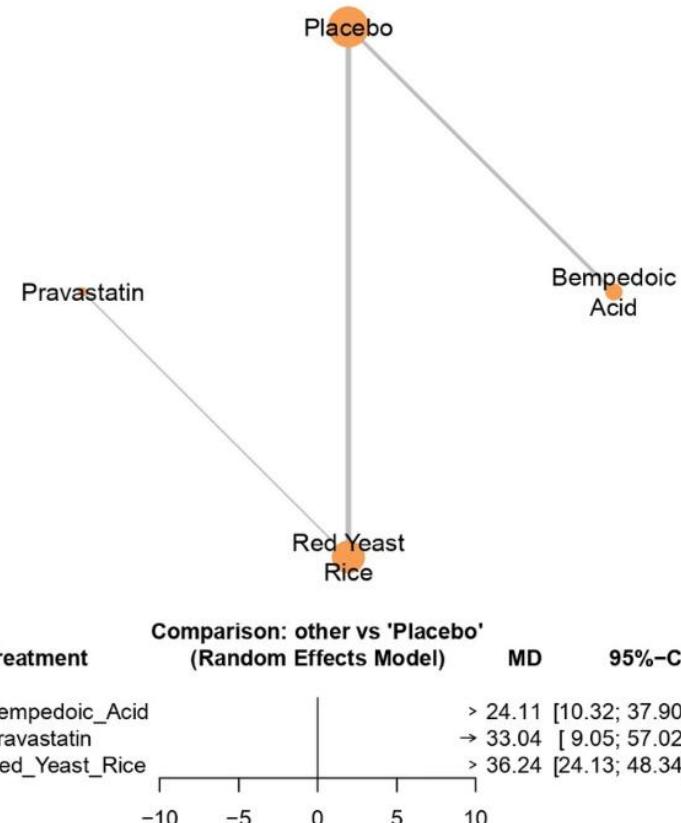
Abstract Body:

standard deviation was 9.71 mg/dL, indicating moderate heterogeneity. No significant inconsistency was detected across the network.

Conclusion: In statin-intolerant patients, red yeast rice appears to offer the most significant LDL-C reduction, followed by bempedoic acid. These findings support the consideration of nutraceuticals and bempedoic acid as

viable alternatives in lipid-lowering strategies when statins are not tolerated.

Network plot of all studies



Control Number: 25-CCC-13-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-13
13

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: ALL THAT GLITTERS IS NOT GOLD: DESMOPLAKIN CARDIOMYOPATHY MIMICKING MYOCARDITIS.

Author Block: Carlos Rodriguez Bolanos, Jorge Andrés Jiménez Severino, C.C.S.S., San Jose, Costa Rica, Hospital Metropolitano, Costa Rica

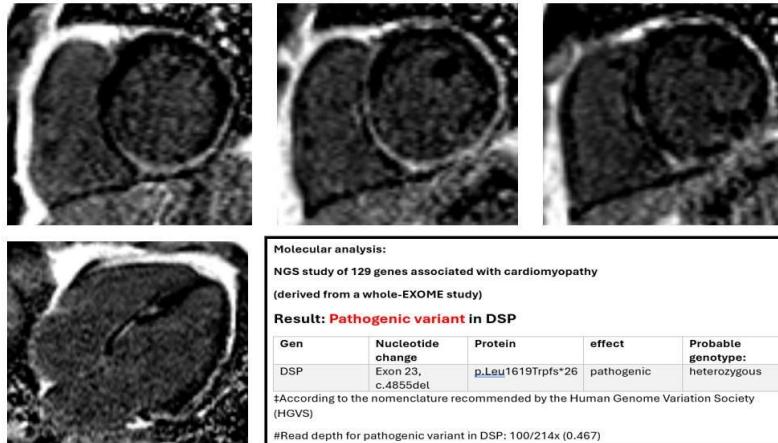
Background: Desmoplakin (DSP) cardiomyopathy has emerged as a specific form of arrhythmogenic cardiomyopathy characterized by fibrosis, LV dysfunction, arrhythmias, and bursts of acute myocardial injury that can be mistaken as viral myocarditis or sarcoidosis.

Case: A 33yo male visits the emergency service with acute chest pain, RBBB and neg. inferior T waves, elevated cTnT 90000pg/ml, and multiple wall motion disorders. Angio showed normal coronary arteries. It was initially managed as myocarditis with Colchicine + NSAIDs. A month later, he

Abstract Body: experienced a recurrence with cTnT 25000pg/ml, PVC >30000 in 24h, and non-sustained VT. Endocrine, Autoimmune and Chagas disease were ruled out. CMR showed LVEF 40%, diffuse hypokinesia, increased T1 mapping 1044ms, ECV 34% and extensive LGE with a ring-like pattern. No edema. Right ventricle not compromised. Given the highly pathological LGE pattern genetic testing was requested, showing a pathogenic heterozygous variant in the DSP gene (nucleotide change Exon 23, c.4855del) causing premature stop of desmoplakin translation, confirming the diagnosis of DSP Cardiomyopathy.

Decision-making: Management included heart failure treatment with GDMT and placement of an ICD for primary prevention of SCD.

Conclusion: Diagnosis of DSP cardiomyopathies remains challenging and must be part of the differential diagnosis of patients with suspected myocarditis. A suggestive LGE pattern helps to distinguish those who will benefit from genetic testing and ICD placement.



Control Number: 25-CCC-196-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-14

14

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SEPTAL ABLATION WITH GELFOAM IN OBSTRUCTIVE HYPERTROPHIC CARDIOMYOPATHY: A THERAPEUTIC ALTERNATIVE.

Author Block: Francisco J. Campos Hernández, Guillermo Llamas-Esperon, SR, Juan A. Robles Jaime, Daniel Gámez González, Eduardo Nieves Paredes, Omar A. Morales Vazquez, zoe J. Rivera Sánchez, Carlos Naranjo Llamas, Camila Narváez Ovando, Hospital Cardiológica Aguascalientes, AGUASCALIENTES, Mexico

Background: HCM is a genetic disorder characterized by LVOT obstruction, leading to symptoms such as exertional dyspnea, syncope, and arrhythmias. Septal reduction therapy, including myectomy and alcohol ablation, is recommended for symptomatic patients unresponsive to medical treatment. We present an alternative approach using Gelfoam for septal ablation.

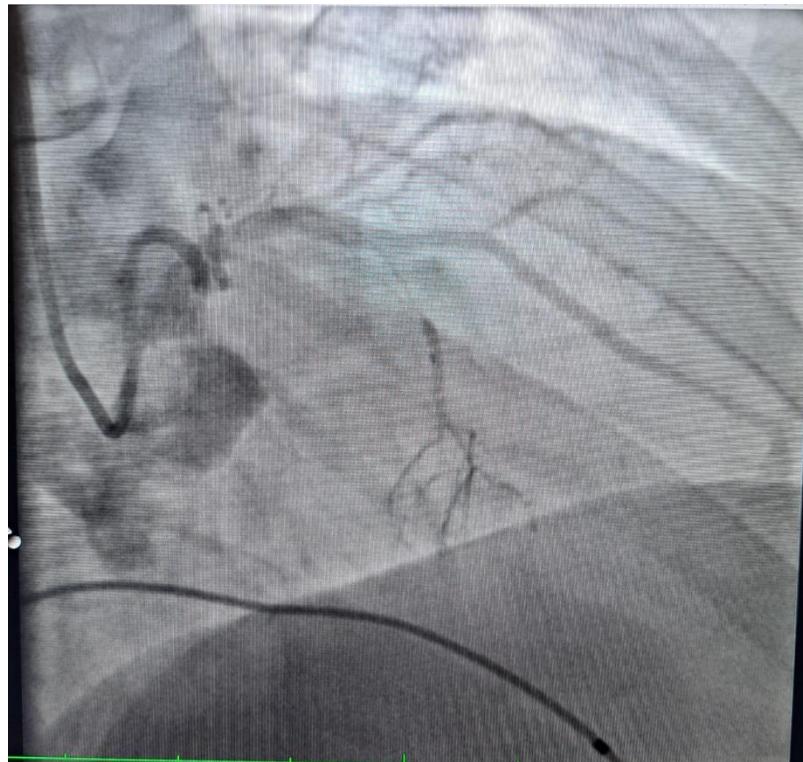
Case: A 49-year-old male with symptomatic obstructive HCM, diagnosed in 2012, experienced recurrent presyncope and dyspnea despite optimal medical therapy. Echocardiography showed a resting LVOT gradient of 85 mmHg, increasing to 106 mmHg with the Valsalva maneuver. Given symptom persistence and high obstruction gradient, septal ablation was performed.

Decision-making: The patient underwent transcatheter septal ablation with Gelfoam. A microcatheter was advanced into the first septal branch, and Gelfoam mixed with contrast was injected, inducing selective infarction. Post-procedure assessment showed an immediate gradient reduction to <20 mmHg. At 6-month follow-up, the patient remained asymptomatic, with

Abstract Body:

echocardiography confirming a mean gradient of 11 mmHg, IVS thickness of 16 mm, and LVEF of 65%.

Conclusion: Septal ablation with Gelfoam is a novel, minimally invasive approach for obstructive HCM. This case demonstrates its potential efficacy in reducing the LVOT gradient and improving symptoms, supporting its consideration as an alternative treatment. Further studies are needed to validate its long-term outcomes.



Control Number: 25-CCC-199-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-15
15

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: THROMBOEMBOLIC PULMONARY HYPERTENSION: A LATE COMPLICATION OF DENGUE?

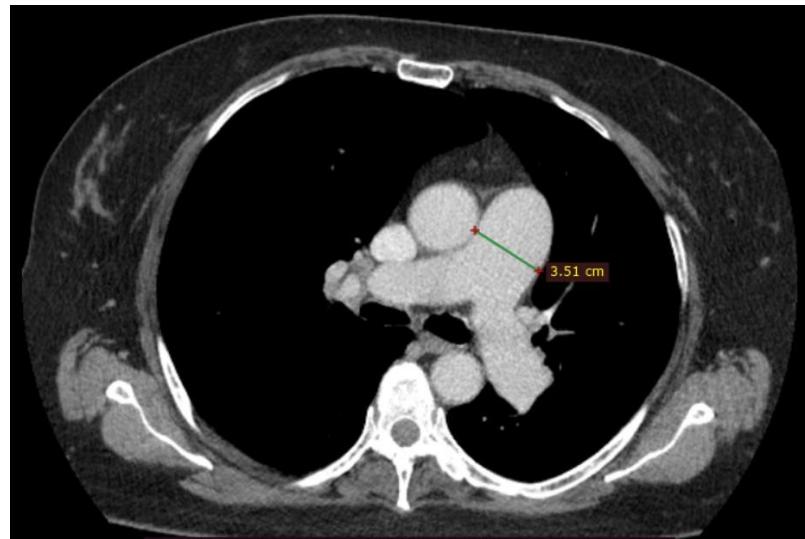
Author Iván García-Gómez, Fanny Vega Castillo, Primavera Clinic, Lima, Peru,
Block: Camana Health Hospital, Peru

Background: The most common clinical manifestation of dengue is bleeding; however, thromboembolic complications can occur
Case: A 57-year-old woman with a history of dengue hemorrhagic fever 1 year ago. The patient presented with exertional dyspnea, progressive lower extremity edema and mild jaundice. Vital signs were normal. CV examination revealed rhythmic and regular heart sounds with a III/VI systolic murmur in the tricuspid focus. Laboratory tests showed mild normocytic normochromic anemia, mild hypertransaminasemia, and hyperbilirubinemia; the remainder was normal. The admission EKG revealed signs of right-sided enlargement and overload; however, the EKG from one year earlier was normal. A TTE showed moderate TR, severe dilatation of the right chambers and PA trunk. Pulmonary angiography confirmed the diagnosis of CTEPH, with evidence of multiple contrast-enhancing defects in the subsegmental branches of the PA.

Abstract Body: **Decision-making:** Autoimmune diseases, coagulation disorders and malignancy were excluded. A venous Doppler ultrasound of the lower extremities was also negative. RHC confirmed precapillary pulmonary hypertension. A diagnosis of CTEPH associated with dengue was made by exclusion. The treatment started with DOACs and pulmonary vasodilators.

Six months later, the patient is clinically stable with improved symptoms.

Conclusion: Dengue is an endemic infectious disease in LATAM countries with early and late CV complications. CTEPH associated with dengue is a rare complication



Control Number: 25-A-204-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-16

16

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CLINICAL OUTCOMES OF PATIENTS WITH HEART FAILURE AND ATRIOVENTRICULAR JUNCTION ABLATION UNDERGOING LEFT BUNDLE BRANCH AREA PACING

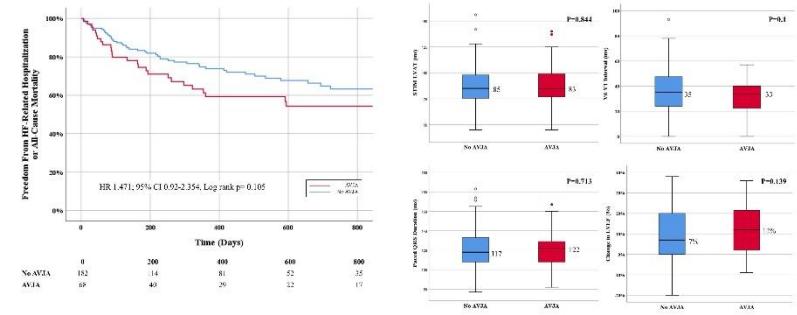
Author Block: Juan Carlos Diaz, Julián Aristizábal, Jorge Eduardo Marin Velasquez, Oriana Cristina Bastidas Ayala, Cesar Daniel Niño Pulido, Luis M. Ruiz, Mauricio Duque, Universidad CES, Medellin, Colombia

Background: Atrioventricular junction ablation (AVJA) in addition to cardiac resynchronization therapy (CRT) improves outcomes in patients with heart failure (HF) and permanent atrial fibrillation (AF). The outcomes of patients undergoing left bundle branch area pacing (LBBAP) in addition to AVJA have not been extensively studied.

Methods: Patients with HF (left ventricular ejection fraction [LVEF] <40%) undergoing LBBAP were included. The primary outcome was freedom from all-cause mortality and HF-related hospitalization. Secondary outcomes included individual components of the primary outcome, pacing parameters and improvement in LVEF.

Results: 182 patients (age 69.4 ± 10.3 ; 68.4% male) were included. Patients in the AVJA group had a lower prevalence of ischemic cardiomyopathy, a higher baseline LVEF and shorter QRS durations; 33% of patients in the no AVJA group had AF. After a median follow-up of 509 [203-845] days, there were no significant differences in the primary outcome (HR 1.449; 95% CI 0.904-2.322, Log rank p= 0.112) or its individual components. Moreover, there were no significant differences in pacing parameters or final LVEF.

Conclusion: Patients with HF and permanent AF requiring AVJA and LBBAP have significant differences in baseline characteristics compared to patients in whom AVJA was not deemed necessary. However, both groups had similar outcomes, as well as pacing parameters, thus supporting the use of LBBAP as a CRT strategy in patients with HF requiring AVJA.



Control Number: 25-CCC-223-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-17

17

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: THE HEART'S SILENT STRUGGLE: CONGESTIVE HEART FAILURE INDUCED BY TKI THERAPY

Author Block: Christian Pena, Aymen Baig, Ting-Wei Lu, University of Texas Health Science Center, San Antonio, TX, USA

Background: This case highlights ponatinib-associated cardiotoxicity in a patient with T315I-mutated chronic myelogenous leukemia, resulting in severe nonischemic cardiomyopathy despite no prior cardiovascular risk factors.

Case: A 36-year-old male with chronic myelogenous leukemia (CML), T315I mutation, and multiple relapses treated with single-agent ponatinib presented to the ED with pleuritic chest pain and dyspnea. Exam revealed mid-neck jugular venous distention and mild bilateral crackles. Labs showed WBC 78 K/mcL with neutrophilia, nonischemic EKG, normal

Abstract Body: troponins, and BNP of 600. Chest X-ray showed pulmonary vascular congestion. Echo demonstrated severely reduced LV systolic function (EF 10%) with global hypokinesis and GLS of -5%. His 2021 echo showed an EF of 40-45%. Prior left heart catheterization was consistent with nonischemic cardiomyopathy. Cardiology initiated guideline-directed medical therapy, with EF improving to 25% within two months of stopping ponatinib.

Decision-making: While 90-95% of CML patients have t(9;22)-driven tyrosine kinase activation, some harbor TKI-resistant mutations. For T315I-mutated CML, ponatinib is preferred but carries significant cardiovascular toxicity, greater than other TKIs. This case describes ponatinib-induced heart failure resulting in ventricular fibrillation arrest due to severe

cardiomyopathy.

Conclusion: Though the exact mechanism of ponatinib cardiotoxicity is unknown, it is considered the most cardiotoxic TKI. Our patient, with no prior cardiac risk factors, required ponatinib due to his T315I mutation. Despite initial tolerance, he developed worsening exertional fatigue and dyspnea. Though initially managed with GDMT, repeated heart failure admissions led to ponatinib discontinuation. This case underscores the need for early recognition and management of TKI-related cardiotoxicity to prevent recurrent decompensation and hospitalizations.

Control Number: 25-A-320-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-18
18

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HEART FAILURE IN PATIENTS WITH RHEUMATOID ARTHRITIS: A CALL FOR EARLY DETECTION AND MANAGEMENT

Author Block: Alexis Zambrano Zambrano, Luis Montiel Lopez, Sandra Muñoz López, Salvador Hernandez Sandoval, Kevin Zambrano Zambrano, Carlos Ixcamparij Rosales, National Institute of Cardiology Ignacio Chávez, Mexico City, Mexico, National Medical Center "20 de Noviembre", Mexico City, Mexico

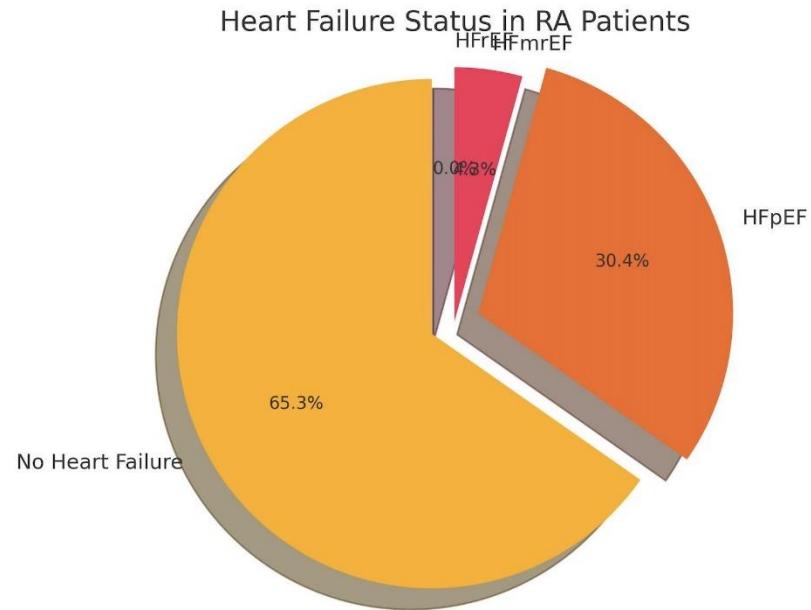
Background: Heart failure (HF) is a serious but often underdiagnosed complication in patients with rheumatoid arthritis (RA), driven by systemic inflammation and independent of traditional cardiovascular risk factors.

Methods: We conducted a cross-sectional observational study including 23 RA patients between May and June 2024. Demographic, clinical, and laboratory data were collected, including C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), and proBNP levels. Echocardiographic evaluation was performed, and HF diagnosis was based on American College of Cardiology and European Society of Cardiology criteria.

Results: The cohort consisted of 2 men and 21 women, mean age 61.5 years. Four patients (17.4%) had a prior HF diagnosis, and 8 patients (34.78%) were diagnosed during the study, with 87.5% showing HF with preserved ejection fraction (HFpEF). Patients with HF exhibited higher CRP (median 25 mg/L vs. 5.4 mg/L) and proBNP levels (median 898 pg/mL vs. 231 pg/mL). Comorbidities such as hypertension, type 2 diabetes, and smoking were more frequent among HF patients.

Abstract Body:

Conclusion: HF prevalence among RA patients was high, particularly HFpEF associated with elevated inflammatory markers. These findings emphasize the need for early cardiovascular screening and aggressive inflammation control to prevent this complication.



Control Number: 25-A-347-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-19

19

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EFFECTIVENESS OF GLUCAGON-LIKE PEPTIDE-1 RECEPTOR AGONISTS IN PATIENTS WITH OBESITY AND HEART FAILURE WITH PRESERVED EJECTION FRACTION: A META-ANALYSIS

Author Lissette Haydee García-Mena, Daniel Paulino-Gonzalez, Daniel Navarro-Martinez, Edwin Andrade-Arbaiza, Sarai Hernandez-Pastrana, Ana Cristina Maldonado-May, Diego Araiza-Garaygordobil, National Institute of Cardiology Ignacio Chavez, Mexico City, Mexico

Block:

Background: Heart failure with preserved ejection fraction (HFpEF) constitutes a substantial burden among patients with obesity. Emerging evidence suggests that glucagon-like peptide-1 (GLP-1) receptor agonists may offer cardiovascular benefits in this population, though their impact on clinical outcomes remains to be fully elucidated.

Methods: A systematic search of databases was conducted through January 2025 to identify randomized clinical trials comparing GLP-1 receptor agonists to placebo in adults with HFpEF and obesity. Primary outcomes included worsening heart failure events, changes in Kansas City Cardiomyopathy Questionnaire (KCCQ) scores, and six-minute walk distance. Event rates and summary data were used to calculate risk ratios (RR) and mean differences (MD) with 95% confidence intervals (CI), using a random-effects model.

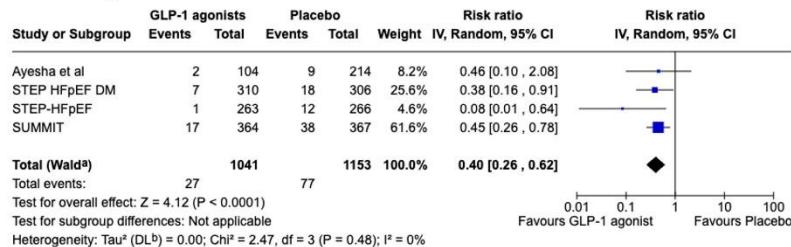
Results: Of 683 articles screened, 4 met inclusion criteria, comprising 2,194 patients. GLP-1 agonists significantly reduced the risk of heart failure events compared to placebo (RR=0.40, 95% CI: 0.26-0.62, p<0.0001). They also led

Abstract Body:

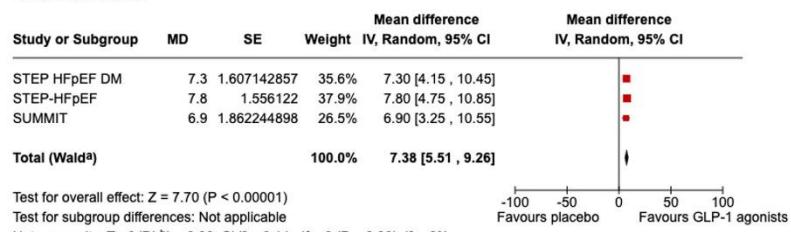
to greater improvements in KCCQ scores (MD=7.38, 95% CI: 5.51-9.26, $p<0.00001$) and six-minute walk distance (MD=16.91 meters, 95% CI: 12.03-21.80, $p<0.00001$).

Conclusion: In patients with HFpEF and obesity, GLP-1 receptor agonists were associated with fewer heart failure events, improved exercise capacity, and enhanced quality of life.

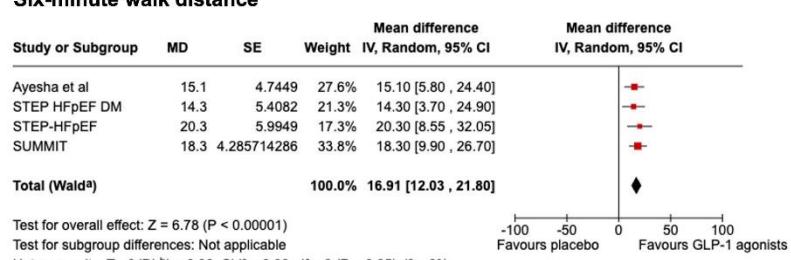
Worsening heart failure event



KCCQ scores



Six-minute walk distance



Footnotes

^aCI calculated by Wald-type method.

^bTau² calculated by DerSimonian and Laird method.

Control Number: 25-CCC-372-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-20

20

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: STEPWISE APPROACH TO THE MANAGEMENT OF END STAGE HEART FAILURE: FROM HIGH DOSE LOOP DIURETICS TO ULTRAFILTRATION AND PLEURODESIS

Author Block: Valentina Aristizabal, JAIME PARRA, Alejandro Tobon, Sebastian Naranjo, Clinica CES, MEDELLÍN, Colombia

Background: Managing End-STage HF in patients ineligible for advanced interventions remains a significant clinical challenge. Traditional therapies focus on disease modification. Palliative measures can substantially alleviate symptoms and enhance quality of life in end-stage disease. (1)

Case: An 81-year-old woman with ischemic HFrEF and severe non-revascularizable 3-vessel coronary disease presented with acute decompensated heart failure. Symptoms included dyspnea, orthopnea, and peripheral edema. Imaging confirmed massive pleural effusion

Abstract Body: unresponsive to high-dose loop diuretics. Despite repeated thoracenteses and inotropic support, her condition remained unstable. As a final palliative measure, ultrafiltration and chemical pleurodesis was performed, resulting in symptomatic relief and successful discharge.

Decision-making: Optimal medical therapy for end-stage HF includes guideline-directed quadruple therapy (ARNI, beta-blocker, MRA, SGLT2 inhibitor) (2). However, titration is often limited by hemodynamic intolerance. In this case, ivabradine was added per the SHIFT trial to control heart rate (3), while intravenous iron (ferric carboxymaltose) addressed deficiency (FAIR-HF2 criteria: TSAT <20%)(4). Intermittent levosimendan infusions (LION-HEART protocol)(5) provided transient hemodynamic and

symptomatic improvement. Despite maximal therapy, recurrent pleural effusions necessitated invasive interventions. While ultrafiltration modestly improved volume status (6,7), pleurodesis offered definitive pleural fluid control, outperforming indwelling tunneled catheters in both symptom relief and feasibility for hospice transition.(8)

Conclusion: End-stage HF is a progressive syndrome with high symptom burden. Early integration of palliative strategies—including novel diuretics, inotropes, and pleural interventions—is critical to reduce hospitalizations and improve patient-centered outcomes. A multidisciplinary approach, combining cardiology and palliative care, ensures optimal management of both disease and symptoms. Future studies should further evaluate protocols for pleurodesis and ultrafiltration in this population.

Control Number: 25-CCC-385-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-21
21

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: ANTI-KU-POSITIVE ANTIBODY MYOCARDITIS PRESENTING AS VENTRICULAR TACHYCARDIA IN A PATIENT WITH NECROTIZING MYOSITIS AND SCLERODERMA OVERLAP SYNDROME: A CASE REPORT

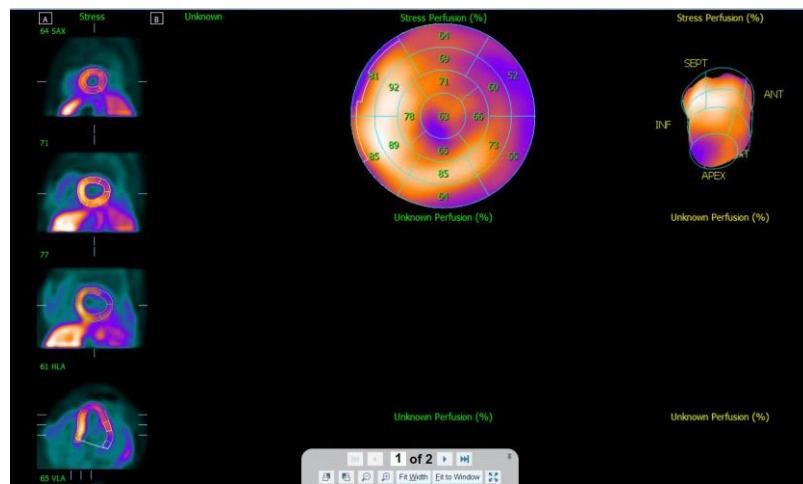
Author Block: Michael Acevedo Monsanto, Trenton Madison, Eric C. Zuberi, Camily Morales Lopez, Leslie T. Cooper, Mayo Clinic Florida, Jacksonville, FL, USA

Background: Anti-Ku antibodies are roughly detected in fewer than 4% of autoimmune myopathy cases. While muscle and skin involvement are typical, cardiac manifestations like myocarditis are rare but potentially life-threatening.

Case: A 35-year-old woman with anti-Ku-positive, biopsy-confirmed necrotizing myositis with scleroderma overlap presented to the ED with palpitations, and dizziness. ECG on admission revealed ventricular

Abstract Body: tachycardia. High-sensitivity troponins rose from 230.6 to 438.6 ng/L, and proBNP was 281 pg/mL. TTE showed mild systolic dysfunction with LVEF of 45% and regional wall motion abnormalities. Coronary CTA was unremarkable. Cardiac MRI showed no edema possibly reflecting steroid-responsive myocarditis.

Decision-making: The patient received 500 mg IV methylprednisolone for three days, followed by monthly IVIG, methotrexate, and a prednisone taper. A follow-up PET/CT myocardial perfusion scan revealed multifocal patchy FDG uptake consistent with myocarditis secondary to anti-Ku antibodies.



Conclusion: This case illustrates a rare cardiac complication in anti-Ku-positive myositis with scleroderma overlap. Initial cardiac MRI may undermine inflammation in steroid-responsive disease, whereas PET/CT can uncover occult myocardial activity. Recognition of anti-Ku antibody myocarditis is crucial since disease can be recurrent and resistant to standard therapy, requiring individualized, multimodal management.

Control Number: 25-A-396-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-22

22

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: REDEFINING OUTCOMES: CARDIAC REHABILITATION IN ADVANCED DILATED CARDIOMYOPATHY WITHIN A RESOURCE-LIMITED SETTING

KAROL GEMA HERNÀNDEZ, Adolfo Calderón-Fernández, Fernando Batiz, Heydi Celeste Suárez Jiménez, Elva Alejandra Manjarrez Granados, Avril

Author Sofia Mendoza, Seni Ocampo-Calderón, Alejandro Vega Acosta,

Block: Autonomous University of Baja California, Tijuana, Mexico, National Institute of Medical Sciences and Nutrition Salvador Zubirán, Ciudad de México, México, Mexico City, Mexico

Background: Dilated cardiomyopathy (DCM) with severely reduced left ventricular ejection fraction (LVEF) carries a poor prognosis. Cardiac rehabilitation (CR) remains underutilized, particularly in low and middle-income countries (LMICs).

Methods: A 57-year-old male with idiopathic DCM and LVEF 5% underwent optimal pharmacologic therapy and an eight-week supervised CR program based on the Frequency, Intensity, Time, and Type (FITT) principle. Functional capacity was assessed by the 6-minute walk test (6MWT) and heart rate recovery (HRR).

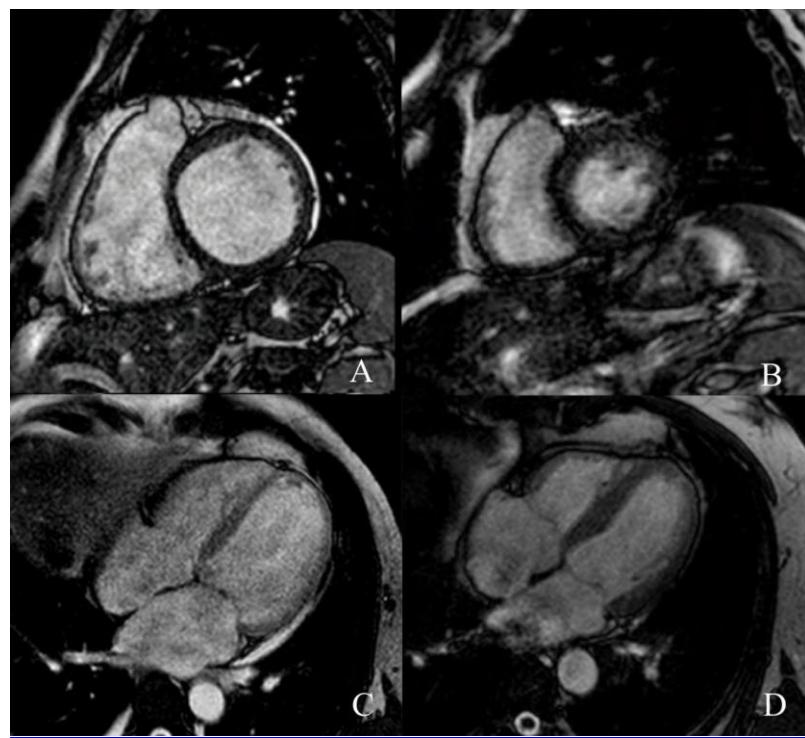
Results: After CR, 6MWT improved from 280m (35% predicted) to 600m (82% predicted), and HRR increased from 13 to 27 beats/min. Biomarkers decreased significantly, including high-sensitivity C-reactive protein and N-terminal pro B-type natriuretic peptide. No adverse events occurred.

Conclusion: Structured CR significantly improved functional and metabolic outcomes in advanced DCM, even in a resource-limited setting. To improve

Abstract

Body:

outcomes, integrating CR into standard heart failure management should be prioritized in LMICs.



Control Number: 25-CCC-398-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-23
23

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HYPERTROPHIC CARDIOMYOPATHY WITH RHEUMATIC MULTIVALVULAR DISEASE IN A TTN MUTATION CARRIER: SURGICAL CHALLENGES AND OUTCOMES

Author Block: Ian Montenegro, Jeniseth Atencio, Edgar Aviles, Robbin Urieta, Carolina Vega, José Aguirre, Centro Nacional Especializado Cardiovascular y Toracico, Panama, Panama

Background: Hypertrophic cardiomyopathy (HCM) is a genetic condition with variable presentations. Its coexistence with multivalvular disease, particularly of rheumatic origin, complicates management strategies.

Case: A 69-year-old woman with hypertension presented with progressive dyspnea. Transthoracic echocardiography revealed reverse-curve HCM with a resting left ventricular outflow tract (LVOT) gradient of 77 mmHg due to systolic anterior motion (SAM) of the mitral valve (Fig 1 A,B). Valvular assessment showed severe aortic stenosis with moderate regurgitation (Fig 1C) and moderate mitral stenosis and regurgitation (Fig 1D), suggestive of inactive rheumatic heart disease. Diastolic dysfunction grade II was present. Genetic testing identified a TTN mutation.

Decision-making: Given the symptomatic HCM and multivalvular involvement, surgical intervention was planned. The patient underwent septal myectomy, aortic valve replacement with a #21 Perimount bioprosthetic, and annular enlargement using the Manouguian technique. Unfortunately, she experienced cardiac arrest and died one hour postoperatively.

Abstract Body:

Conclusion: This case highlights the high-risk nature of HCM with multivalvular disease. It underscores the need for individualized and multidisciplinary perioperative strategies.

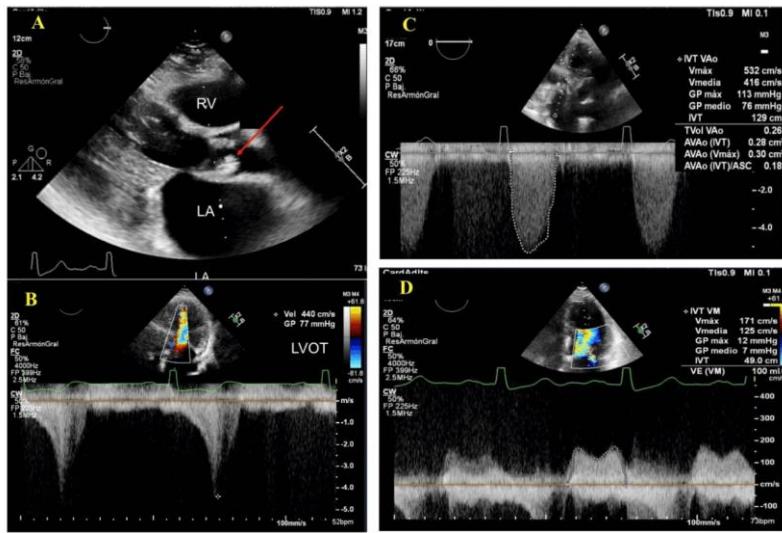


Fig 1. Transthoracic echocardiography. **(A)** Severe concentric left ventricular hypertrophy (LVH), indexed mass 222 g/m². **(B)** Resting LVOT gradient of 77 mmHg due to systolic anterior motion (SAM) of the mitral valve. **(C)** Severe aortic stenosis with moderate regurgitation. **(D)** Moderate mitral stenosis and regurgitation.

Control Number: 25-CCC-402-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-24

24

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FOCAL TAKOTSUBO CARDIOMYOPATHY MASQUERADING AS MINOCA: A DIAGNOSTIC CHALLENGE IN AN ELDERLY WOMAN

Author Block: Alvaro Taveras, Licurgo Jacob Cruz, Samuel De Jesus Vasquez, Omarlyn Ruiz, Hospital Metropolitano de Santiago (HOMS), Santiago, Dominican Republic, Pontificia Universidad Católica Madre y Maestra (PUCMM), Santiago, Dominican Republic

Background: Takotsubo cardiomyopathy is a transient myocardial dysfunction that mimics myocardial infarction but lacks obstructive coronary disease. The focal variant is exceptionally rare and may closely resemble myocarditis or MINOCA, making diagnosis challenging

Case: A 72-year-old woman with a history of hypertension, diabetes, and transient ischemic attack presented with two weeks of retrosternal chest pain. She was hemodynamically stable with unremarkable physical exam findings. ECG showed no abnormalities, but high-sensitivity troponins were elevated at 656 ng/L. Echocardiography revealed segmental wall motion abnormalities. A coronary CTA performed five months prior showed no coronary artery disease and a calcium score of zero, raising suspicion for MINOCA.

Decision-making: To avoid unnecessary invasive angiography, cardiac MRI was performed and revealed localized myocardial edema in the mid-anteroseptal wall without late gadolinium enhancement—consistent with focal Takotsubo cardiomyopathy. Follow-up echocardiography at six months showed complete resolution of left ventricular dysfunction. A significant emotional stressor was later identified, supporting the

Abstract Body:

diagnosis. This case underscores the value of cardiac MRI in differentiating Takotsubo from other etiologies of chest pain and elevated troponins, especially in patients with low coronary risk.

Conclusion: Focal Takotsubo cardiomyopathy is a rare and underrecognized cause of MINOCA-like presentations. Cardiac MRI plays a pivotal role in its diagnosis, enabling proper management while avoiding invasive procedures. Clinicians should maintain a high index of suspicion, particularly in elderly women with recent emotional stress and no significant coronary disease.

Control Number: 25-CCC-415-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-25

25

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CARDIOGENIC SHOCK SECONDARY TO THYROID STORM: A FATAL CASE DESPITE GUIDELINE-BASED MANAGEMENT

Author Block: Ivan Rafael Figueroa Baez, Angel Davila, San Juan City Hospital, San Juan, PR

Background: Thyroid storm is a life-threatening endocrine emergency characterized by severe hyperthyroidism with multi-organ involvement, including cardiovascular complications such as atrial fibrillation and cardiogenic shock.

Case: A 38-year-old male with a history of hyperthyroidism presented to the Emergency Department with progressive bilateral lower extremity swelling, fatigue, abdominal pain, sweating, palpitations, tremors, and diarrhea. Due to loss of job and medical follow-up, he had discontinued his hyperthyroidism treatment. Physical examination revealed exophthalmos, goiter, irregular cardiac rhythm, and pitting edema. EKG showed atrial fibrillation with rapid ventricular response, and chest X-ray showed cardiomegaly with bilateral pleural effusions. Laboratory results confirmed thyroid storm with a Burch-Wartofsky score of 55, suppressed TSH (0.001 uIU/mL), and elevated total T4 (30.20 uG/dL). The patient developed cardiogenic shock despite initial treatment.

Decision-making: According to the 2018 ACC/AHA/HRS Guidelines on tachyarrhythmias, beta-blockers (propranolol) were used for rate control in A-fib with FVR due to hyperthyroidism. Given the cardiogenic shock, vasopressor support (norepinephrine, vasopressin, epinephrine) was initiated. Amiodarone was added for rate control due to persistent A-fib.

Abstract Body: goiter, irregular cardiac rhythm, and pitting edema. EKG showed atrial fibrillation with rapid ventricular response, and chest X-ray showed cardiomegaly with bilateral pleural effusions. Laboratory results confirmed thyroid storm with a Burch-Wartofsky score of 55, suppressed TSH (0.001 uIU/mL), and elevated total T4 (30.20 uG/dL). The patient developed cardiogenic shock despite initial treatment.

Despite aggressive management, the patient's hemodynamic status deteriorated, and he succumbed to refractory shock.

Conclusion: This case highlights the severe cardiovascular consequences of untreated hyperthyroidism, including thyroid storm leading to cardiogenic shock. Despite guideline-based management with beta-blockers, corticosteroids, antithyroid medications, and aggressive hemodynamic support, the patient experienced fatal refractory shock. Prompt recognition and early, aggressive intervention are critical.

Control Number: 25-A-427-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-26

26

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: COMPARISON OF POTASSIUM LOWERING STRATEGIES FOR HYPERKALEMIA MANAGEMENT IN HEART FAILURE RETROSPECTIVE COHORT

Author Block: Maria Juliana Vergara Chavez, Carlos Alberto Porras, Centro Medico de Especialistas Colsubsidio Calle 63, Bogota, Colombia

Background: Hyperkalemia is common in patients with heart failure (HF) and may limit the continuation and up-titration of cardioprotective therapies (guideline-directed medical therapy, GDMT), increasing the risk of decompensation. This study evaluated potassium-lowering strategies to manage hyperkalemia without modifying GDMT.

Methods: A retrospective cohort study (2023-2024) was conducted in an outpatient cardiology clinic. A total of 2,331 potassium (K) measurements from 1,237 patients were analyzed. Among these, 671 patients with

Abstract Body: hyperkalemia ($K \geq 5.1$ mEq/L) were classified according to management strategy: no intervention, dietary modification (n=85) mainly in patients with low hyperkalemia, new potassium binders (n=77), diet + new potassium binders (n=11), or modification of GDMT (n=94). Potassium normalization and reduction were evaluated using Wilcoxon tests and Cliff's delta.

Results: Hyperkalemia was present in 53% of patients. Median age was 73 years; 69% were male; and 36% had chronic kidney disease (CKD). Potassium normalization rates were 63.5% with diet mainly in patients with low hyperkalemia, 53.2% with new potassium binders, and 68% among those with GDMT modifications. Although adjusting GDMT resulted in greater potassium reduction in statistical analysis, this approach may

compromise the established clinical benefits of foundational therapies and is not a recommended strategy. No additional benefit was observed with combined interventions.

Conclusion: Potassium-lowering strategies, particularly dietary modification and new potassium binders, were effective and safe for managing hyperkalemia while preserving GDMT. These findings support current recommendations (ESC 2021, TRED-HF, and JACC 2025) prioritizing maintenance of optimal medical therapy in HF.

Control Number: 25-CCC-429-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-27

27

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FROM STIMULATION TO DYSFUNCTION: A CASE OF DILATED CARDIOMYOPATHY SECONDARY TO CHRONIC RV APICAL PACING

Author Block: Julio R. Guillen, Alejandra Marcela Vaquiro Valencia, Med&Cardio, Guatemala, Guatemala

Background: Chronic right ventricular (RV) apical pacing can lead to electric and mechanical dyssynchrony, and over time can cause left ventricular dysfunction and pacing-induced cardiomyopathy (PiCM). Although newer, more physiological pacing techniques are being implemented, it is essential to recognize and prevent irreversible myocardial dysfunction in patients with RV apical pacing.

Case: A 50-year-old male with grade II obesity and hypertension presented with syncope and was diagnosed with complete atrioventricular block, initially intermittent and later persistent with a ventricular escape rate under 30 bpm. He underwent dual-chamber pacemaker implantation with the ventricular lead placed at the RV apex. Two years later, he presented with palpitations and recurrent syncope. Interrogation revealed 100% RV pacing, intermittent capture failure, and absent intrinsic rhythm. Non-sustained ventricular tachycardia was documented. Cardiac magnetic resonance imaging showed perforation of the RV apical lead. He experienced a transient ischemic attack with full neurological recovery post-thrombolysis. Echocardiography showed new-onset dilated cardiomyopathy with left ventricular dyssynchrony and a left ventricular ejection fraction (LVEF) of 34%. Viral and Chagas testing were negative. The patient was started on guideline-directed medical therapy, treated for sleep

Abstract Body:

apnea, and began walking 150 minutes per week. He received a cardiac resynchronization therapy defibrillator.

Decision-making: Despite device implantation, the patient remained a non-responder at 6 months with LVEF of 38%. He then began a structured weight loss program and lost 15% of his total body weight. One year later, repeat echocardiography showed improvement in LVEF to 64%. The case illustrates that in non-responders to resynchronization therapy, secondary interventions such as weight reduction may impact functional recovery.

Conclusion: This case emphasizes the importance of early recognition of PiCM, device upgrade when indicated, and the role of modifiable factors like weight loss in improving outcomes, particularly in apparent non-responders.

Control Number: 25-A-440-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-28

28

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SAFETY AND EFFICACY OF OMECAMTIV MECARBIL FOR HEART FAILURE WITH REDUCED EJECTION FRACTION: A META-ANALYSIS OF 9,408 PATIENTS

Sayeli Elisa Martínez Topete, Adolfo Calderón-Fernández, Heydi Celeste Suárez Jiménez, Joe Maldonado, Ximena Rosas Jiménez, Kenia Cornejo

Author Alcantara, Arath Josué Campos Muñoz, Seni Ocampo-Calderón, Juan José Parcero Valdes, Autonomous University of Baja California, Tijuana, Mexico, National Institute of Medical Sciences and Nutrition Salvador Zubirán, Mexico City, Mexico

Background: Heart failure with reduced ejection fraction (HFrEF) remains a leading cause of morbidity and mortality despite significant advances in guideline-directed medical therapy. Omecamtiv mecarbil, a selective cardiac myosin activator, has emerged as a promising therapeutic option to enhance myocardial contractility without increasing oxygen demand.

Methods: A systematic search was conducted in PubMed and EMBASE up to April 10th, 2025, identifying five randomized controlled trials involving 9,408 patients with HFrEF. Primary outcomes included all-cause mortality, myocardial infarction (MI), stroke, heart failure (HF) events, and adverse effects. Pooled risk ratios (RR) with 95% confidence intervals (CI) were calculated using a random-effects model. Heterogeneity was evaluated using the Chi² test and the I² statistic.

Results: Omecamtiv mecarbil showed no significant difference in mortality (RR 1.00, 95% CI [0.93, 1.07]), MI (RR 1.01, 95% CI [0.33, 3.08]), or HF events (RR 0.95, 95% CI [0.89, 1.01]). Stroke risk was significantly lower in the

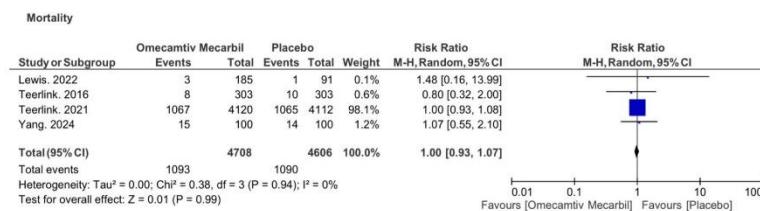
omecamtiv group (RR 0.68, 95% CI [0.52, 0.90], $p = 0.006$). No significant differences were observed regarding the occurrence of serious adverse events or any other complications.

Conclusion: Omecamtiv mecarbil appears to be a safe and well-tolerated therapy for HFrEF. Although it did not reduce overall mortality, it was associated with a significant reduction in stroke risk, supporting its potential role as an adjunctive treatment.

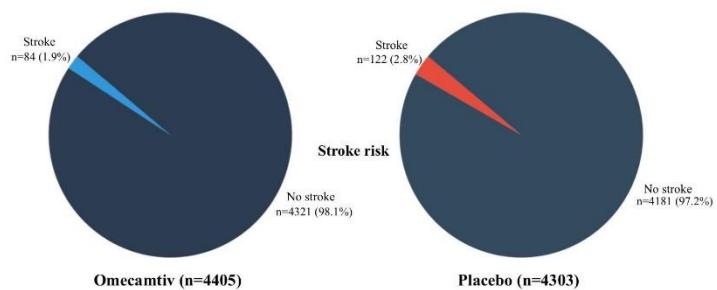
Effect of Omecamtiv Mecarbil in Patients with Heart Failure with reduced Ejection Fraction



[Risk of bias legend](#)



[Risk of bias legend](#)



Omecamtiv (n=4405) Placebo (n=4303)

Control Number: 25-CCC-446-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-29

29

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: MULTIDISCIPLINARY MANAGEMENT OF ACUTE-ON-CHRONIC PULMONARY EMBOLISM IN A POSTPARTUM PATIENT WITH CONGENITAL HEART DISEASE AND PULMONARY HYPERTENSION

Jesús Alberto Blanco Hernández, Karla Alejandra Pupiales Dávila, Christian Guillermo Tapia Cervantes, Laura Belmont Rojo, Jorge Sanchez Nieto, Romina D. Pérez Dominguez, Monserrath Basilio Téllez, Stephanie Angulo Cruzado, Andre M. Luna Hernandez, Ana Alarcón Martínez, Carla M. Dominguez Pereyra, Jonathan D. Reyes Rivera, Edgar Garcia Cruz, Instituto Nacional de Cardiología Ignacio Chávez, CDMX, Mexico, Instituto Nacional de Perinatología Isidro Espinosa de los Reyes, CDMX, Mexico

Background: Congenital heart disease with pulmonary hypertension (PH) and pulmonary embolism (PE) during the puerperium carries high maternal risk and requires multidisciplinary care.

Case: A 27-year-old woman with total anomalous pulmonary venous connection, sinus venosus atrial septal defect, Eisenmenger syndrome, and severe tricuspid regurgitation presented at 34.2 weeks' gestation with fetal growth restriction and dyspnea. An urgent cesarean section and tubal ligation were performed. She initially recovered well but was readmitted 11 days later with desaturation (34% on room air), tachypnea, and signs of right heart failure. CT angiography revealed acute-on-chronic PE, dilated pulmonary trunk, severe PH, and partial anomalous pulmonary venous return.

Decision-making: Anticoagulation was started with low-molecular-weight

Abstract Body:

heparin, bridged to acenocoumarol. Sildenafil and oxygen were added to reduce pulmonary vascular resistance. Thrombolysis and embolectomy were avoided due to stability. Postpartum hypertension was treated with carvedilol and enalapril. Follow-up showed clinical improvement, oxygen withdrawal tolerance, and preserved biventricular function.

Conclusion: This case highlights the successful multidisciplinary management of congenital heart disease with PH and PE in the puerperium. Timely, individualized decisions avoided invasive interventions and ensured maternal stability.



Pulmonary angiotomography showing areas of opacification defect and a non-occlusive segmental branch thrombus in the right interlobar artery

Control Number: 25-CCC-455-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-30
30

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: AN UNUSUAL CASE OF HEART FAILURE WITH REDUCED EJECTION FRACTION SECONDARY TO DILATED CARDIOMYOPATHY DUE TO ACROMEGALY

Author Cristian Orlando Porras Bueno, Alejandro Mariño Correa, Dario Parra Prieto, Nancy Muriel Herrera Leaño, Maria Juliana Soto Chavez, Emilio J. Juan Guardela, Pontifical Xavierian University, Bogotá, Colombia, Hospital Universitario San Ignacio, Bogotá, Colombia

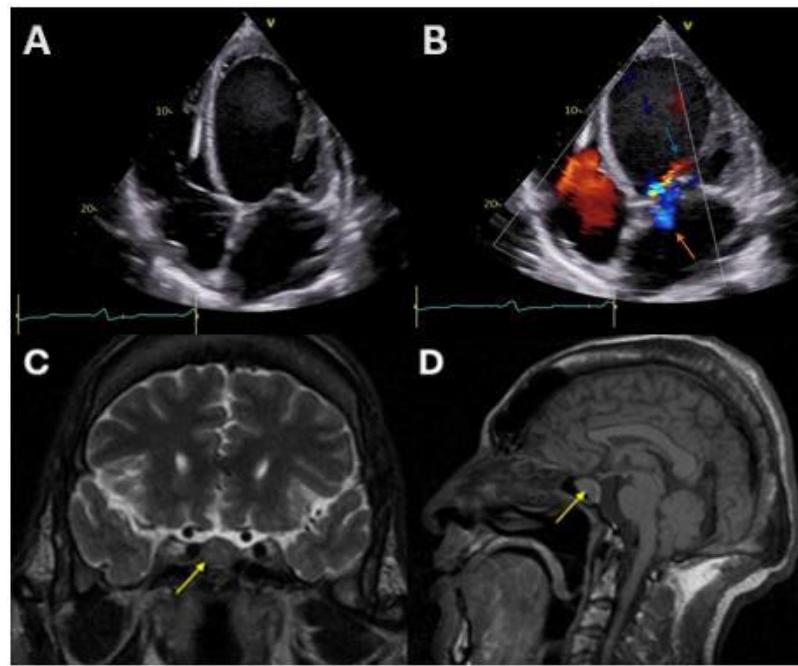
Block: **Background:** Cardiovascular disease is the major comorbidity and a frequent cause of death in acromegaly (ACG). ACG is linked to biventricular hypertrophic cardiomyopathy, mainly on the left side (80%), with subsequent diastolic dysfunction up to 58% and systolic dysfunction with HF in < 3%, this being a rare form of presentation.

Abstract Body: **Case:** A 54-year-old man with uncharacterized HF, type 2 diabetes, hypertension, and ACG from a pituitary adenoma without treatment consulted for 3 weeks of congestive symptoms. His electrocardiogram was in sinus rhythm with a P wave recalling left atrial dilation. The echocardiogram showed a severe dilatation of both ventricles and atria, a left ventricular ejection fraction (LVEF) of 14%, with severe mitral and torrential tricuspid regurgitation. Secondary causes of dilated cardiomyopathy (DCM) were ruled out. The magnetic resonance showed pituitary macroadenoma without compressive effect (Figure 1). Insulin-like growth factor 1 (IGF-1) was 395 ng/mL.

Decision-making: HF with reduced LVEF due to DCM owing to ACG was

diagnosed. Pituitary surgery was contraindicated due to high surgical risk. Somatostatin analogue and standard HF medications at maximum tolerable doses were prescribed. After 2 months, symptoms and IGF-1 (189 ng/mL) improved. However, he suddenly died awaiting an implantable cardioverter defibrillator.

Conclusion: Proper hormonal treatment with medication or surgery is needed in ACG to prevent cardiovascular complications such as HF, among others.



Control Number: 25-CCC-460-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-31

31

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FATAL OUTCOME IN A PATIENT WITH UNCORRECTED CONGENITAL HEART DISEASE

Riguey Cecilia Mercado Marchena, Mayra Alejandra Manrique Moreno, Víctor Jaimes, Bryan David Hernandez Nieto, María José Sarmiento Alvarez, Carlos Eduardo Alcalá Manjarres, Zenen Rua, Manuel Urina-Triana, Miguel A. Urina-Triana, Faculty of Health Sciences, Simón Bolívar University, Barranquilla, Colombia, Faculty of Health Sciences, Libre University, Barranquilla, Colombia

Background: Ventricular septal defect (VSD) is a common congenital heart disease. If uncorrected, it can lead to complications such as bacterial endocarditis (BE). This case highlights the severe consequences of BE in a patient with uncorrected VSD

Case: A 23 y/o woman with an uncorrected perimembranous VSD presented with a 15 days of fever, dyspnea and bilateral lower limb edema. Her pulse was 106 bpm without hypotension or fever, and a precordial holosystolic murmur on auscultation. TTE revealed vegetations on mitral valve leaflets, the non-coronary cusp of the aortic valve and both the pulmonary and tricuspid valves, along with severe mitral and pulmonary regurgitation. The systolic pulmonary pressure was estimated at 90 mmHg. A diagnosis of BE was confirmed by positive blood cultures for *Streptococcus sanguinis*. Despite targeted antimicrobial therapy for 10 days, the patient developed hemoptysis, shock and cardiopulmonary arrest before any surgical intervention was done and the patient passed away within 24 hours.

Abstract Body:

Decision-making: This case underscores the need for timely correction in congenital heart defects to prevent complications such as BE. It also highlights the challenges of managing complex cases where surgery poses a high risk.

Conclusion: Early detection and prompt intervention in VSD patients are crucial to prevent fatal outcomes from severe infections like BE. Regular follow-up and proactive management of complications are essential for improving prognosis in high risk patients.

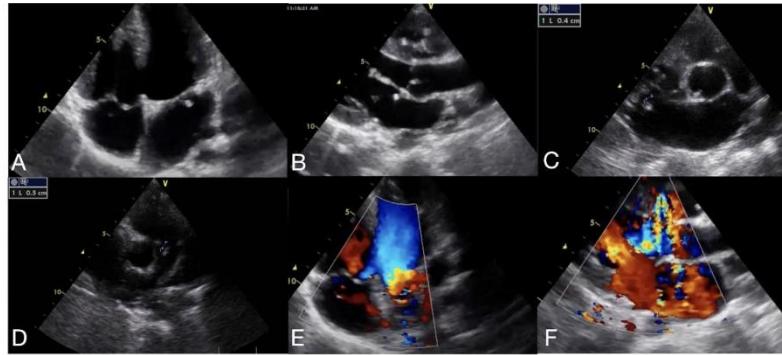


Figure 1. Panel **A**: Apical 4-chamber view showing images suggestive of vegetations on the mitral and tricuspid valves, as well as a perimembranous ventricular septal defect with a maximum diameter of 20 mm. Panel **B**: Parasternal long-axis view showing a mobile vegetation on the anterior leaflet of the mitral valve and the non-coronary cusp of the aortic valve. Panels **C** and **D**: Parasternal short-axis view at the level of the great vessels, revealing images suggestive of a mobile vegetation attached to the tricuspid and pulmonary valves. Panels **E** and **F**: Apical 4-chamber view and Parasternal short-axis view showing perimembranous ventricular septal defect with right to left flow by color doppler.

Control Number: 25-CCC-461-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-32

32

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FROM EFFUSIVE-CONSTRICITIVE PERICARDITIS TO CASTLEMAN DISEASE: A DIAGNOSTIC JOURNEY

Author Block: Cordelia Alanis-Garza, Jose Gildardo Paredes-Vázquez, Jaime Guillermo González-Medina, Humberto de Leon-Gutierrez, Jorge Joya-Harrison, Daniel Lira-Lozano, Juan Carlos Ibarrola-Pena, Christian Camacho-Mondragón, Marisol Molina-Avilés, Instituto de Cardiología y Medicina Vascular, Zambrano Hellion, Tec Salud, Monterrey, Mexico

Background: Constrictive pericarditis (CP) may represent an initial manifestation of Castleman disease (CD), a rare lymphoproliferative disorder with systemic inflammation.

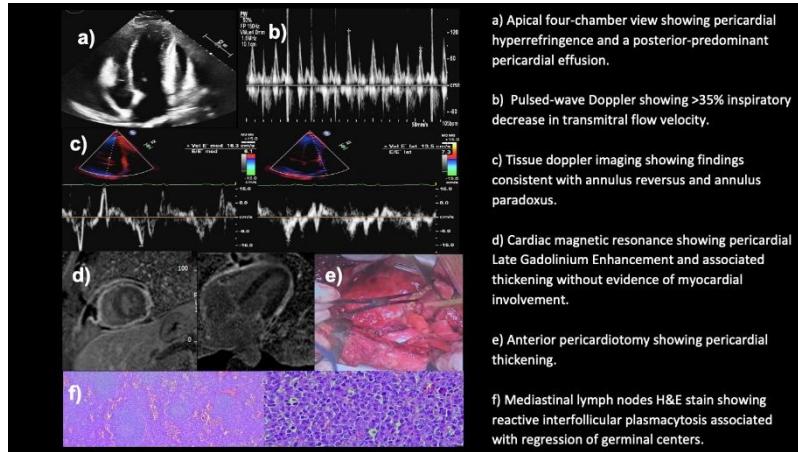
Case: A 49-year-old male presented with progressive dyspnea, orthopnea, and chest discomfort for three months. Clinical examination showed jugular venous distention and muffled heart sounds. Initial laboratory results were unremarkable. Transthoracic echocardiography showed pericardial effusion with CP features; Computed tomography of the chest (CT) revealed bilateral pleural effusion and enlarged mediastinal lymph nodes. Cardiac magnetic resonance imaging demonstrated pericardial late gadolinium enhancement without myocardial involvement. Pericardial window and thoracentesis confirmed exudative effusion. Infectious, autoimmune, and oncologic workups were negative; CP persisted.

Decision-making: Anterior pericardiotomy was performed with lymph node biopsies. Histology showed fibrosis, perivascular infiltrates, and plasma cell-rich inflammation. Diagnosis of plasma cell-predominant CD was

Abstract Body:

confirmed, supported by elevated interleukin-6 (IL-6). Clinical improvement followed, and immunosuppressive therapy was initiated.

Conclusion: CP with systemic findings should prompt consideration of CD. Histopathological evaluation is key to diagnosis and management.



Control Number: 25-CCC-464-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-33

33

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: MYOPATHY-INDUCED CARDIOMYOPATHY AND PULMONARY EMBOLISM: A COMPLEX INTERPLAY

Author Block: Diana A. Mejia Verdial, Ana L. López Hernández, Hospital General de México Dr. Eduardo Liceaga, Ciudad de México, Mexico

Background: Myopathies, particularly Duchenne Muscular Dystrophy (DMD), can affect cardiac function, leading to cardiomyopathy. This case presents managing a DMD patient with suspected cardiomyopathy complicated by pulmonary embolism (PE), where immobility and heart failure increase risk.

Case: A 24-year-old female with DMD presented with acute respiratory failure, characterized by severe dyspnea at rest, orthopnea, and a decreased oxygen saturation of 85% on room air. Relevant PE risk factors included immobility secondary to DMD and concern for DMD-related cardiomyopathy. Initial evaluation revealed hypoxemia, elevated respiratory rate, and tachycardia. ECG showed sinus tachycardia with S1Q3T3, suggestive of PE. Angio-CTA revealed extensive subsegmental bilateral basal PE with involvement of multiple pulmonary arteries, as well as right ventricle dysfunction, likely secondary to PE, plus pulmonary hypertension. The patient underwent thrombolysis.

Decision-making: Given the patient's history and right ventricle dysfunction, there was suspicion for underlying cardiomyopathy contributing to PE risk, potentially linked to DMD. Thrombolysis was performed, and the patient showed significant clinical improvement. Learning points include the need for close monitoring due to the patient's

Abstract Body:

reduced functional capacity, which could impact long-term outcomes and rehabilitation.

Conclusion: A multidisciplinary approach is essential, considering risk factors and thrombolysis benefits. Recognizing potential cardiac dysfunction in DMD patients with PE is vital for positive outcomes.

Control Number: 25-A-465-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-34

34

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: IMPLEMENTATION OF AN AMBULATORY HEART FAILURE PROGRAM IN A DEVELOPING COUNTRY: THE CONTINUATION - SUMMARY OF THE FIRST TWO YEARS METRICS

Author Block: Mádelyn Raquel Valle Ramos, Cristian Sandoval, Carlos Osorio, Orlando José Durón Rivas, JOSE LUIS ALVARADO, Zacapa Regional Hospital, Zacapa, Guatemala

Background: In August 2021, the first ambulatory heart failure program was implemented in Guatemala for patients at the Zacapa Regional Hospital, as it had been the leading diagnosis for admission since 2017. The results of the first 2 years and the follow-up of the 303 patients who had been admitted to the program are described.

Methods: Retrospective, longitudinal and descriptive study. Clinical and other examination data from patients in the heart failure program were reviewed. A total of 303 patients completed follow-up for at least 6 months after entering the program.

Results: 58.7% of patients were women, mean age 65 years. Ischemic heart disease (31.68%), Chagas disease (30.69%) and hypertensive heart disease (25.7%) were the three main causes. 85.2% were hospitalized 30 days prior to entering the program, and the mean follow-up in the program was 18 months. At baseline, 71.9% of patients had LVEF \leq 40%, 16.17% had LVEF between 40-50%, and 11.88% had preserved LVEF. At the first 2-year follow-up, 43.11% of patients with reduced LVEF had LVEF recovered. The mean NT-proBNP at baseline was 10,717.70 pg/dl and the mean control level was

Abstract Body:

2,462.82 pg/dl. At two years after starting the program, 78% of patients were receiving foundational treatment. The mortality rate was 9.57%, and the rehospitalization rate was 16% with the most frequent cause being discontinuation of treatment, accounting for 57% of re-admissions.

Conclusion: GDMT and education are crucial to improving the prognosis in heart failure.

MEDICATION SUMMARY				
MEDICATION	% WITH MEDICATION	AVERAGE DOSE	% WITH INTERMEDIATE DOSE	% WITH OPTIMAL DOSE
RAASI	96.11	NA	49.3	37.9
ARNI	71.61	124.42	44.7	33.1
ACE	15	6.95	48	36
ARB	9.5	218.6	55.2	44.8
Beta blocker	80.1	4.2	70.3	10.2
iSGLT2	90.1	10	0	100
RMA	74	31.1	0	100

RAASI: renin-angiotensin-aldosterone system inhibitor, ARNI: Angiotensin Receptor–Neprilysin Inhibitor, ACE: angiotensin-converting enzyme inhibitor, ARB: angiotensin II receptor blocker, iSGLT2: SGLT2 inhibitor, RMA: mineralocorticoid receptor antagonist.

Control Number: 25-CCC-29-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-35

35

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: CALCIFIED CORONARY LESIONS

Author Block: Alejandra Rosado Bosque, San Angel Inn Chapultepec Hospital, Mexico, Mexico

Background: Calcified lesions remain a challenge for interventional cardiologists. The lithotripsy balloon is a new plaque modification tool whose safety and efficacy in patients with stable ischemic heart disease. The following is the case of a patient with total occlusion.

Case: Calcified lesions remain a challenge for interventional cardiologists. The lithotripsy balloon is a new plaque modification tool whose safety and efficacy in patients with stable ischemic heart disease. The following is the case of a patient with total occlusion. Male, 65 years old, in he underwent myocardial revascularization surgery in 2010. He presented in 2020,

Abstract Body: catheterization and was finding: the Circumflex with proximal sub-occlusive lesion with 98% stenosis, stent in distal third with intra-stent hyperplasia with 40% stenosis. Aorto-circumflex aorto-circumflex with ostial chronic total occlusion. Angioplasty was performed and Orsiro 3x15mm TIMI 3 stent was placed. In 2024 electrocardiographic changes were found in the anterior and inferior face. Cardiac catheterization found intra-stent restenosis mehran IV (chronic total occlusion) with non-dilatable lesion in the proximal third of the circumflex. Calcium was measured with optical coherence tomography calcium greater than 270, with a length greater than 5mm and a thickness of 0.5mm.

Decision-making: Therefore, it was performed with a 2.5x13 coronary

lithotripsy balloon (shockwave) and 10 pulses of 10 cycles each were delivered in the distal third and proximal to the circumflex, observing adequate luminal gain. Xcience sierra 3x28 mm balloon was delivered at 14 atmospheres with TIMI 3 final flow.

Conclusion: Interventional challenges are common in calcified coronary lesions

Control Number: 25-A-176-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-36
36

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: METABOLIC AND ANGIOGRAPHIC PROFILE IN PATIENTS UNDER 45 YEARS OF AGE WITH ST-ELEVATION MYOCARDIAL INFARCTION (STEMI) IN TERTIARY CARDIAC HOSPITAL OF MEXICO

Author Block: Jesús Alberto Martínez Álvarez, Fernando Manuel Calderón Osorio, Alberto Esteban Bazzoni Ruiz, Mexican Social Security Institute, Torreón, Mexico

Background: Cardiovascular disease is the leading cause of death worldwide; an estimated 17.9 million people died in 2019 because of cardiovascular disease, accounting for 32% of all deaths globally. Of these, 85% were due to myocardial infarction or stroke (1).

Methods: Descriptive, retrospective, analytical, retrospective study from March 1, 2023, to March 1, 2024, of patients under 45 years of age who were treated for ST-segment elevation myocardial infarction in our unit.

Results: In our hospital we reviewed 32 records of patients under 45 years with a diagnosis of ST-segment elevation myocardial infarction, where 27 were men and 5 women; the average age was 42 years. The main risk factor was sedentary lifestyle in 81.1%, followed by smoking 59.4%. Systemic arterial hypertension 40.6%, dyslipidemia 37.5% and type 2 diabetes 28.1%. Among the main causes of myocardial infarction, 87% were of obstructive origin, while 13% were of non-obstructive origin. The anterior descending artery (AD) is the most affected. Our results at admission, we found high mean LDL levels of 92 mg/dL, triglycerides 127 mg/dL, cholesterol 162 mg/dL, HDL 40 mg/dL.

Conclusion: Currently, the diagnosis of acute myocardial infarction (AMI)

has a high mortality rate in our country, being the leading cause of death in adults. Young patients with obstructive coronary artery disease have risk factors similar to those of older patients. Coronary angiography, in younger patients; reveals less extensive disease compared to older patients.

Variable		n (%)
Sex	Male	27 (84.4%)
	Woman	5 (15.6%)
	Sedentary lifestyle	23 (81.1%)
	Smoking	19 (59.4%)
	Alcoholism	16 (50.0%)
	Systemic arterial hypertension	13 (40.6%)
	Dyslipidemia	12 (37.5%)
	Diabetes type 2	9 (28.1%)
Coronary artery involvement		
	Anterior descending	14 (43.8%)
	Right coronary artery	12 (37.5%)
	MINOCA	4 (12.5%)
	Left main coronary artery	1 (3.1%)
	Circumflex	1 (3.1%)
	Marginal	0
	Diagonal	0

Control Number: 25-A-243-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-37

37

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: SYNERGETIC EFFECT OF TWO METABOLIC INDEXES TO PREDICT COMPLICATIONS IN MYOCARDIAL INFARCTION

Author Geovedy Martinez Garcia, Annia Maria Carrero Vazquez, Liliam Gretel Cisneros Sanchez, Sonia Maria Sanchez Valcarcel, Natalia Reinosa
Block: Paneque, Yunuen Cacique Borja, Enrique Cabrera Teaching General Hospital, Havana, Cuba

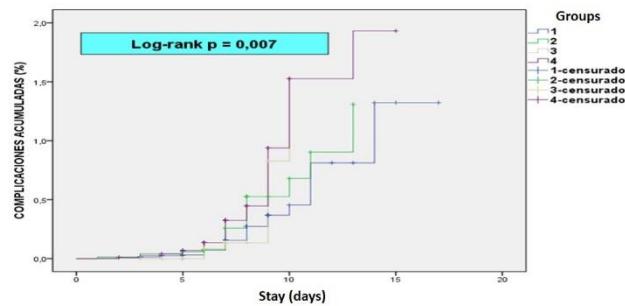
Background: Leukoglycemic (LGI) and triglycerides-glucose (TGI) indexes involve as predictors of in-hospital complications in ST-segment elevation myocardial infarction (STEMI). The purpose of study is to evaluate the prediction capacity of LGI and TGI, and to determinate the interaction between them

Methods: Analytical, cohort and retrospective study, which implicated 551 patients with STEMI. In-hospital complications were considered the endpoint of investigation. Patients were grouped according to cutoff point values of the LGI and the TGI. Kaplan Meier's method was utilized to generate the curves of accumulative events stratified by the LGI's and the TGI's value of cutoff point. The interaction among two indexes was estimated using the excess of attributable risk, attributable proportion and the index of synergy

Results: Curved ROC's analysis showed a poor discrimination: LGI: AUC=0.62 (p<0.001); TGI: AUC=0.55 (p=0.079). The risk of complications was 2.61 bigger times for patients with $LGI \geq 1,646$; and 1.91 bigger times for individuals with $TGI \geq 9.16$. Patients who showed elevated levels of LGI and TGI, as a whole, presented high risk of complications [(Log- rank, p=0.007);

(OR=2.91; 95% CI 1.40-6.06; p<0.001)]. There was a synergistic interaction among indexes (excess of attributable risk: 0.921; attributable proportion: 0.417; index of synergy: 4.19)

Conclusion: The LGI and the TGI increase, of synergistic form, the risk of appearing of in-hospital complications in patients with STEMI



Curve of Kaplan Meier's survival according to groups formed with cutoff points of LGI and the TGI. LGI: leukoglycemic index ; TGI: triglycerides-glucose index .
Group 1: LGI<1,646 and TGI<9.16; Group 2: LGI≥1,646 and TGI<9.16; Group 3: LGI<1,646 and TGI≥9.16; Group 4: LGI≥1,646 and TGI≥9.16

Control Number: 25-A-245-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-38
38

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: IMPACT OF PHASE II CARDIAC REHABILITATION ON FUNCTIONAL CAPACITY AND QUALITY OF LIFE IN PATIENTS WITH COMPLEX CORONARY LESIONS UNDERGOING PARTIAL REVASCULARIZATION

Author Adriel Ismael Alonso Batun, SR, Andres Ku Gonzalez, Moises Luna Morales, Martinez Zapata Jesus Antonio, Miguel Santaularia Tomas, Roger Cauich Ake, Valeria Lugo Niebla, Alejandro Vazquez Calderon, Roberto Andre Moguel
Block: Valladares, Jeanny Fernanda Chapuz Magaña, Amonario Olivera Mar, Hospital Regional Alta Especialidad de la Península de Yucatán, Mérida, Mexico

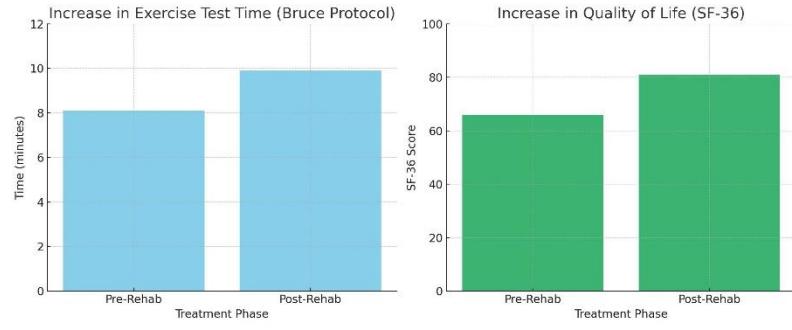
Background: Patients with complex coronary artery disease often undergo partial revascularization due to anatomical complexity or comorbidities. In these cases, Phase II cardiac rehabilitation (CR) may play a key role in improving clinical outcomes. This study aimed to assess the effect of CR on functional capacity and quality of life.

Abstract Body: **Methods:** A retrospective study was conducted in 57 patients with multivessel coronary disease and incomplete revascularization. All patients completed a 4-week Phase II CR program consisting of 10 sessions of supervised exercise training at 70% of heart rate reserve (or Borg 12), nutritional counseling, and psychological support. Pre- and post-rehabilitation cardiopulmonary exercise tests and SF-36 questionnaires were evaluated.

Results: After CR, mean exercise duration increased from 8.1 to 9.9 minutes (Bruce protocol), a 22% improvement. METs improved by 43.9% and VO₂ by

24%. The ischemic threshold shifted positively, and quality of life scores (SF-36) increased from 66 to 81 points. No adverse events were reported.

Conclusion: Phase II CR significantly improves exercise capacity, ischemic tolerance, and quality of life in patients with complex coronary artery disease treated with partial revascularization. These findings support the inclusion of CR as a standard therapeutic component in this patient subgroup.



Control Number: 25-CCC-248-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-39
39

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: BATMAN TO REDUCE LVOT OBSTRUCTION RISK IN TMVR

Author Block: Mohamed Ibrahim, James F. Howick, Abdallah El Sabbagh, Mayo Clinic, Jacksonville, FL, USA

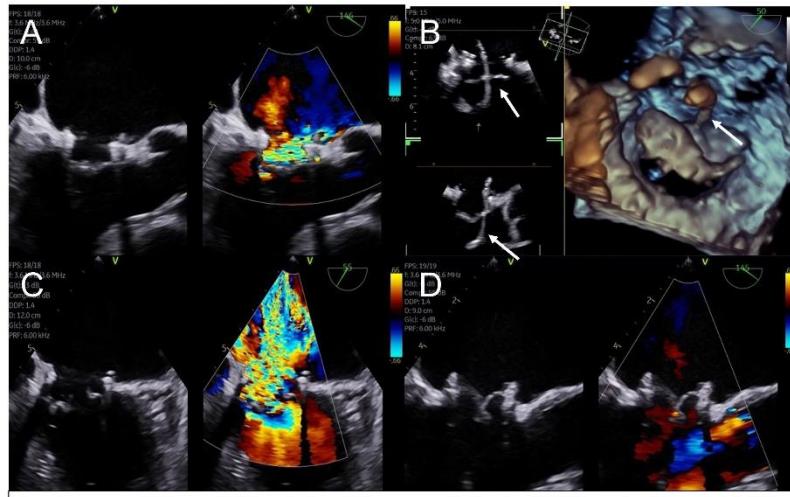
Background: Mitral valve-in-ring (ViR) procedures carry a high risk of left ventricular outflow tract (LVOT) obstruction. Traditional strategies like LAMPOON, septal ablation, or surgery have limitations. The BATMAN (Balloon-Assisted Translocation of the Mitral Anterior Leaflet) technique offers a catheter-based solution. A single-wire transseptal BATMAN modification, introduced in 2025, simplifies the approach by reducing wire exchanges and avoiding high-energy laceration.

Case: An 84-year-old man with prior surgical mitral annuloplasty presented 12 years later with severe mitral regurgitation and a paravalvular leak. Imaging showed an elongated anterior leaflet with high LVOT obstruction risk. He underwent transcatheter mitral ViR replacement and leak closure with a 12-mm Amplatzer Vascular Plug II. To reduce obstruction risk, the transseptal single-wire BATMAN approach was used.

Decision-making: Access was obtained in bilateral femoral veins, left femoral and right radial arteries. Following transseptal puncture, septostomy, and leaflet crossing with an electrocautery-tipped Astatore wire, balloon-assisted tracking enabled leaflet displacement. A 22-mm Atlas Gold balloon translocated the A2 leaflet, resulting in expected severe MR.

Conclusion: A 26-mm SAPIEN 3 Ultra RESILIA valve was deployed without

LVOT obstruction or residual MR. The single-wire transseptal BATMAN approach proved safe, efficient, and less invasive for LVOT obstruction prevention in complex ViR cases.



Transesophageal echocardiogram (TEE) revealed severe MR (Panel A) characterized by two prominent jets: an eccentric, anteriorly directed jet due to restricted posterior leaflet motion, and a second jet originating from the medial commissure. BATMAN was performed via mechanical laceration and ballooning of the anterior leaflet (Panel B, white arrows) resulting in torrential MR (Panel C). A 26-mm Edwards SAPIEN 3 Ultra RESILIA valve was then successfully implanted with no evidence of post-procedural prosthetic stenosis, residual regurgitation, or LVOT obstruction (Panel D)

Control Number: 25-A-296-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-40
40

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: ST-SEGMENT ELEVATION AND DEPRESSION IN LEAD AVR AS A PREDICTOR OF LESION LOCATION IN THE LEFT ANTERIOR DESCENDING ARTERY

Author JUAN ANTONIO ROBLES JAIME, Guillermo Llamas-Esperon, SR, Francisco Javier Campos Hernández, Daniel Gámez González, Eduardo Nieves
Block: Paredes, Zoe Rivera, Omar Alejandro Morales Vazquez, Hospital Cardiologica Aguascalientes, Aguascalientes, Mexico

Background: Lead aVR, often overlooked in the electrocardiogram (ECG), may provide valuable diagnostic clues in anterior myocardial infarction, particularly regarding lesion location in the left anterior descending artery (LAD).

Methods: Retrospective observational study. We included 102 patients with acute coronary syndrome (ACS) and a culprit lesion in the LAD admitted between January 2023 and December 2024. Lesions were classified as proximal (before the first diagonal branch) or mid/distal. ST-segment deviation in aVR was defined as ≥ 1 mm, either upward or downward. ECGs and angiograms were reviewed by a single operator.

Results: Among 102 patients, 58 (56.8%) had proximal lesions and 44 (43.2%) mid/distal. In the proximal group, 21 (36%) showed ST elevation, 4 (7%) ST depression, and 33 (57%) no change. In distal lesions, 28 (63.6%) had ST depression and 16 (36.4%) no change. Left bundle branch block was more frequent in the proximal group (28%), while right bundle branch block was more common in the distal group (20%).

Conclusion: ST elevation in aVR was associated with proximal

LAD lesions, whereas ST depression was more common in distal lesions. Systematic assessment of lead aVR may serve as a quick and accessible tool to help localize culprit lesions in anterior infarction.



Control Number: 25-CCC-359-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-41
41

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: AORTIC DISSECTION SECONDARY TO AORTIC COARCTATION IN AN ADULT PATIENT

Author Block: Cesar Iridiani Javier Montiel, Jaime Santiago Hernandez, SR, Armando S. Montoya-Guerrero, Daniel Campuzano, Carlos Riera-Kinkel, Lucelli Yañez-Gutierrez, Hospital de Cardiología Centro Médico Nacional Siglo XXI, Mexico City, Mexico

Background: Coarctation of the aorta refers to a narrowing of the aortic artery that causes obstruction to aortic blood flow. It is more prevalent in males and is diagnosed in childhood.

Case: A 62-year-old female with a history of diabetes and systemic arterial hypertension, whose current condition began 6 months prior to her admission, with a deterioration in her functional class due to dyspnea and fatigue, remaining in NYHA functional class II.

Abstract Body: **Decision-making:** During her approach, a transthoracic echocardiogram documented aortic coarctation with a mean gradient of 28 mmHg, as well as a Stanford B DeBakey III B aortic dissection on CT angiography. A medical-surgical session was held where it was decided to perform a hybrid procedure. A debranching was performed with a 16 x 8 mm bifurcated Dacron tube to the subclavian and left carotid arteries, as well as a 14 mm straight Dacron tube graft to the brachiocephalic trunk. Her progress was adequate during her stay in postoperative therapy. After the surgical procedure, 10 days later, endovascular repair of the thoracic aorta was performed, being successful with a residual mean gradient of 10 mmHg.

Conclusion: The case of an adult patient was presented in whom congenital heart disease was diagnosed in adulthood, presenting a complication resulting from this, which was resolved with a hybrid surgical and interventional treatment.



Control Number: 25-A-360-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-42

42

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: A COMPARISON STUDY OF LATE V EARLY STEMI PRESENTERS IN PETÉN, GUATEMALA

Tanya Reyna, David Cao, Rahul Banerjee, Cesar Ortiz-Vargas, Julio Vasquez-

Author Block: Gongora, Carlos García-Martínez, Hospital Nacional de San Benito, San Benito, Guatemala

Background: Timely myocyte reperfusion is critical for improving cardiac outcomes in ST-elevation myocardial infarction (STEMI). This study aimed to examine the symptom-to-door time among STEMI patients at Hospital Nacional de San Benito (HNSB) in Northern Guatemala, comparing the demographic and clinical characteristics of early and late presenters. Our goal is to inform protocols that promote earlier intervention.

Methods: We conducted a retrospective chart review of 44 adults with ECG-confirmed STEMI admitted to HNSB from 2023 to 2025. Patients were classified as early (<12 hours) or late (>12 hours) presenters based on time

Abstract Body: from symptom onset to hospital arrival. We compared demographic data, vital signs, laboratory values, treatment strategies, and length of stay using Fisher's exact test and Mann-Whitney U test.

Results: The majority of both early and late presenters were male (80.0% vs. 66.7%; $p=0.498$). Rates of diabetes (94.4% vs. 76.2%; $p=0.19$) and hypertension (85.0% vs. 81.8%; $p=1.0$) were similarly high across groups. Late presenters arrived significantly later than early presenters (mean 55.9 \pm 38.1 hours vs. 4.92 \pm 3.3 hours; $p < 0.001$), with only 25.0% arriving within 24 hours. Early presenters were significantly more likely to receive fibrinolytic therapy (70.6% vs. 12.5%; $p < 0.001$). Although late presenters

had a longer average hospital stay (6.5 vs. 3.6 days), the difference was not statistically significant ($p = 0.28$).

Conclusion: This pilot study demonstrates a statistically significant delay in time to presentation among late STEMI presenters, which substantially impacted the likelihood of receiving fibrinolytic therapy. Although no statistically significant differences in demographics or comorbidities were observed, the prolonged symptom-to-door times in late presenters may be contributing to differences in clinical management and potentially outcomes, as suggested by a non-significant trend toward longer hospital stays. These findings highlight an urgent need for further investigation into the causes of delayed presentation and for targeted interventions to improve timely access to care in resource-limited settings.

Control Number: 25-CCC-370-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-43
43

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: EXCLUSION OF RIGHT CORONARY ARTERY ANEURYSM IN THE CONTEXT OF ISCHEMIC CORONARY ARTERY DISEASE

Author Block: Orlando Javier Romero Meneses, Lorena Muñoz, Roberto Vazquez Gonzalez, UMAE 34, IMSS, MONTERREY, Mexico

Background: Coronary artery aneurysmal disease is defined as the dilation of an artery segment measuring more than 1.5 times the diameter of the adjacent normal segment. 20 to 30% of cases are congenital, 10 to 20% are secondary to connective tissue disorders. Clinical presentation may range from asymptomatic to acute coronary syndrome (ACS).

Case: A 37-year-old female patient history of smoking, diabetes, and dyslipidemia, who presented to the emergency department with ACS. ECG revealed ST-segment elevation in the inferior leads. Due to lack of access to

Abstract Body: a catheterization (CTT), fibrinolytic therapy was initiated, the patient was subsequently referred to our center for a pharmaco-invasive strategy. CTT showed a normal left coronary system TIMI 3 flow. The right coronary artery measured 4.0 mm, dominant, and exhibited a long, aneurysmal, and tortuous lesion in the vertical segment measuring 20 x 20 mm, evidence of calcification, preserved TIMI 3 flow.

Decision-making: A CT angiography was performed, the case was discussed in a Heart Team session. The patient was accepted for myocardial revascularization with internal mammary artery grafting, exclusion of the aneurysm, and biopsy. She was admitted to the ICU. Rheumatologic causes were ruled out during her stay. The patient had a favorable recovery and was

discharged early.

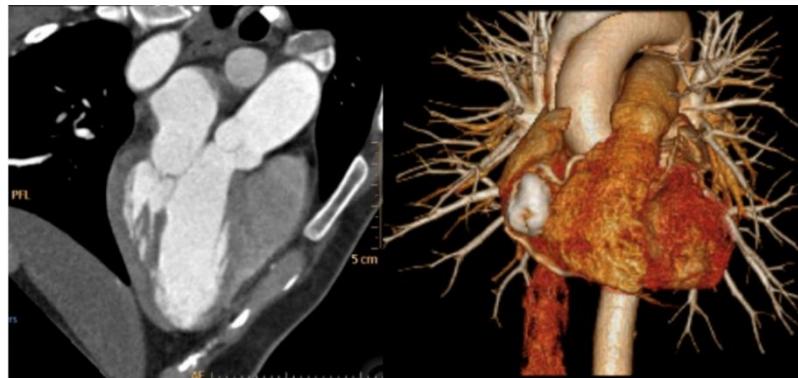


Fig 1. Coronary CT angiography showing a coronary calcium score of 233 Agatston units within the capsule of a right coronary artery (RCA) aneurysm.

Fig 2. 3D reconstruction of a partially thrombosed and calcified coronary aneurysm in the mid-segment of the right coronary artery, measuring 23 x 21 mm with a length of 35 mm. Additionally, resting perfusion abnormalities are observed, indicating myocardial ischemia in the territory of the RCA.

Conclusion: This case highlights the management of ACS in a young patient with cardiovascular risk factors, with successful intervention and resolution of the underlying pathology.

Control Number: 25-CCC-371-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-44

44

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: GIANT MYOCARDIAL BRIDGE: AN OCCULT CAUSE OF ANGINA IN THE ABSENCE OF CORONARY ARTERY DISEASE

Author Block: Fernando Arturo Santibáñez García, Jose Ramon Benitez Tirado, Juan Carlos Mandujano, Centro Médico Naval, CDMX, Mexico

Background: Myocardial bridge (MB) is a congenital anomaly in which a coronary segment—most often the mid-LAD—runs intramyocardially. Systolic compression >50% (“milking effect”) may induce ischemia, ventricular arrhythmias, or, rarely, sudden death. Prevalence peaks at autopsy and is lower on invasive angiography.

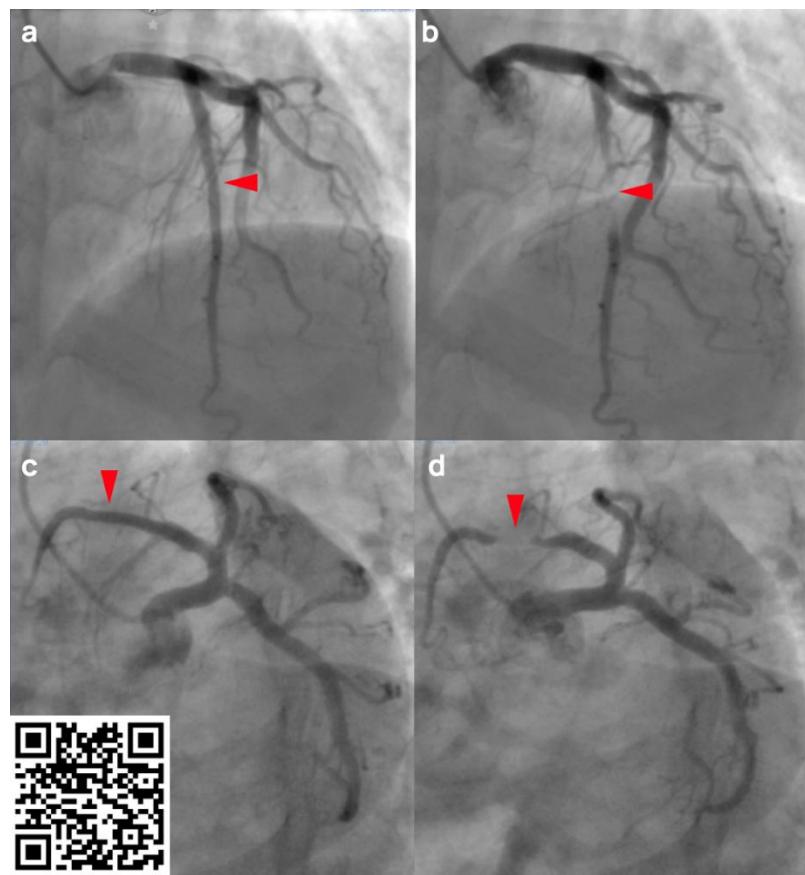
Case: A 62-year-old woman with mixed dyslipidemia and rheumatoid arthritis developed exertional dyspnea and rest angina. Exercise testing (modified Bruce) provoked reversible ST changes. Angiography showed a type 3 LAD without atherosclerosis but with a midsegment MB, type B Schwarz milking, and TIMI 3 flow. Beta-blockers achieved complete, sustained relief.

Decision-making: In patients with angina and normal coronaries but positive stress tests, suspect MB and confirm hemodynamic significance by systolic cineangiography. First-line therapy uses heart-rate-reducing agents—beta-blockers or non-DHP calcium-channel blockers—to prolong diastole and reduce compression. Nitrates are contraindicated. Refractory cases may merit myotomy or stenting after maximal medical therapy.

Conclusion: Symptomatic MB with ischemia responds well to tailored medical therapy. Prompt recognition, individualized pharmacotherapy, and

Abstract Body:

close follow-up are crucial to improve prognosis and avoid unnecessary invasive interventions.



Control Number: 25-A-374-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-45
45

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PROGNOSTIC VALUE OF GALECTIN-3 AND ST2 FOR LONG-TERM ADVERSE CARDIOVASCULAR EVENTS FOLLOWING MYOCARDIAL INFARCTION: A META-ANALYSIS

Author Block: Ramiro Moreno, Kathereen Oliden, Carlos Guzmán, Universidad Autónoma de Nuevo León (UANL). Facultad de Medicina, Monterrey, Mexico

Background: Galectin-3 and ST2 are emerging biomarkers of myocardial injury with established roles in heart failure; however, their prognostic value following myocardial infarction remains unclear.

Methods: A meta-analysis was conducted in accordance with PRISMA guidelines. We performed a comprehensive search of PubMed, Embase, and Scopus through January 2025. Twelve studies (n=8,412 patients) were identified; ten studies (n=6,580) met inclusion criteria. Studies included prospective cohorts reporting multivariable-adjusted hazard ratios (HRs) for elevated baseline Galectin-3 or ST2 in relation to major adverse cardiovascular events (MACE). Biomarkers were analyzed categorically by comparing the highest versus lowest quartiles, as defined in each study. Pooled hazard ratios were calculated using random-effects models.

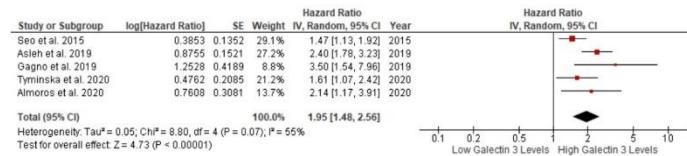
Results: Elevated baseline Galectin-3 was associated with increased risk of long-term MACE (HR 1.95; 95% CI 1.48-2.56; $I^2=55\%$). Elevated ST2 similarly predicted higher MACE risk (HR 2.01; 95% CI 1.59-2.53; $I^2=0\%$). Associations remained significant after adjustment for age, sex, LVEF, troponins and inflammatory markers. Included studies had a mean follow-up of 12 months.

Conclusion: Baseline elevations of Galectin-3 and ST2 independently

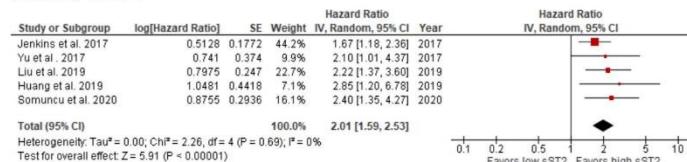
Abstract Body:

predict long-term cardiovascular risk following MI. Their integration into clinical models may improve risk prediction and support individualized patient management.

GALECTIN 3



SOLUBLE ST2



Control Number: 25-CCC-425-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-46

46

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: ALLERGIC MYOCARDIAL ISCHEMIA TRIGGERED BY IBUPROFEN: A CASE OF TYPE I KOUNIS SYNDROME IN A YOUNG ADULT WITHOUT CARDIOVASCULAR RISK FACTORS

Alvaro Taveras, Licurgo Jacob Cruz, Samuel De Jesus Vasquez, Omarlyn Ruiz, Milagros González, Samela María Cabrera, Génesis Alba Badía,

Author Block: Gabriela María Martinez, Hospital Metropolitano de Santiago (HOMS), Santiago, Dominican Republic, Pontificia Universidad Católica Madre y Maestra (PUCMM), Santiago, Dominican Republic

Background: Kounis syndrome is defined as the co-occurrence of acute coronary events with hypersensitivity reactions, triggered by drugs, foods, or environmental agents. It is an underrecognized cause of ischemic chest pain, particularly in patients without traditional cardiovascular risk factors.

Case: A 34-year-old male with a background of atopic dermatitis and known drug intolerance presented to the emergency department with sudden-onset, retrosternal chest pain and palpitations, approximately one

Abstract Body: hour after self-medicating with 600 mg of ibuprofen for post-dental procedure pain. He denied dyspnea or syncope. On arrival, his blood pressure was 100/60 mmHg and heart rate 120 bpm. ECG revealed sinus rhythm and symmetrical T-wave inversions in leads I, aVL, V5, and V6. Initial cardiac biomarkers were within normal limits. During admission, he developed pruritic, erythematous, scaly plaques on the elbows, lower back, and abdomen. A skin biopsy confirmed eosinophilic perivascular dermatitis, and allergy testing revealed hypersensitivity to NSAIDs, including ibuprofen.

Decision-making: The patient was initially managed under a standard NSTEACS protocol. However, given the absence of biomarker elevation, normal findings on coronary CT angiography, and clear signs of a systemic allergic reaction, a diagnosis of Type I Kounis syndrome was made.

Treatment included corticosteroids and antihistamines (prednisone and loratadine), while aspirin, clopidogrel, bisoprolol, and simvastatin were discontinued due to concerns over potentiating allergic symptoms. No adverse cardiovascular outcomes occurred during hospitalization, and the patient remained asymptomatic on follow-up.

Conclusion: This case underscores the need to consider Kounis syndrome in patients presenting with acute chest pain following drug exposure, particularly in the absence of structural heart disease. Early recognition is essential to avoid unnecessary invasive procedures, prevent complications from inappropriate medications, and tailor therapy to address both allergic and cardiovascular components of the syndrome.

Control Number: 25-A-194-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-47

47

Topic 1: Multimodal Imaging

Publishing Title: ANDES CHD ECHO: RIGHT VENTRICULAR THICKNESS AND SYSTOLIC FUNCTION IN INFANTS ACROSS DIFFERENT ALTITUDES

Author Block: Katia Bravo Jaimes, MHD Osama Srour, Darla Carvallo, Mónica Medina, Gian Huaman, Rafael Marquez, Mayo Clinic, Jacksonville, FL, USA

Background: Studies on high-altitude children reported mixed results on the persistence of RV predominance after birth. Our study assessed RV parameter variation in Andean infants from the ANDES-CHD study.

Methods: The ANDES-CHD study was a prospective observational cohort involving newborns from 0 to 4380 meters above sea level in Peru assessing preductal/posductal oximetry, echocardiography, and clinical follow-up until 12 months of age for the subset of healthy infants. The ANDES-CHD-ECHO sub-study included those with interpretable apical 4-chamber

Abstract Body: echocardiographic clips. RV parameters of interest included end-diastolic RV thickness indexed to body surface area and RV fractional area change (FAC). Descriptive statistics were calculated for the sample and by altitude level. Multivariate analysis was conducted using multiple linear regression to account for age, gestational age at birth, sex, birth weight, maternal age at birth, maternal comorbidities, and heart rate as potential confounders.

Results: 81 healthy infants from varying altitudes were included, mostly female (58%) and Mestizo (97.5%). RV parameters stratified by altitude are shown in Table 1. After adjusting for confounders, RV FAC was significantly reduced in infants living at 3259 and 4338 masl (p-values 0.021 and 0.006, respectively), with no difference in indexed RV thickness.

Table 1. ***

Parameters	Altitude (masl) [†]			
	11 n = 38	2727 n = 13	3259 n = 9	4338 n = 21
Indexed RV thickness (mm/m ²)	10.95 ± 3 (n=33)	9.57 ± 0.93 (n=6)	9.49 ± 0.5 (n=5)	11.02 ± 4.48 (n=16)
RV FAC (%)	45.5 ± 15.25	46 ± 7	38 ± 5	38 ± 6

[†] Median ± IQR

Conclusion: Infants residing at higher altitudes exhibited significantly lower RV FAC, while RV thickness remained consistent among altitudes.

Control Number: 25-CCC-238-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-48
48

Topic 1: Multimodal Imaging

Publishing Title: UNRAVELING AORTIC VALVE OBSTRUCTION: THE POWER OF CARDIAC CT IN DISTINGUISHING PANNUS FROM THROMBUS

Author Block: Kendall Ramírez-Sanabria, Diego Alberto Avila-Sánchez, Cardiology Service Hospital Dr Rafael Angel Calderon Guardia, San Jose, Costa Rica

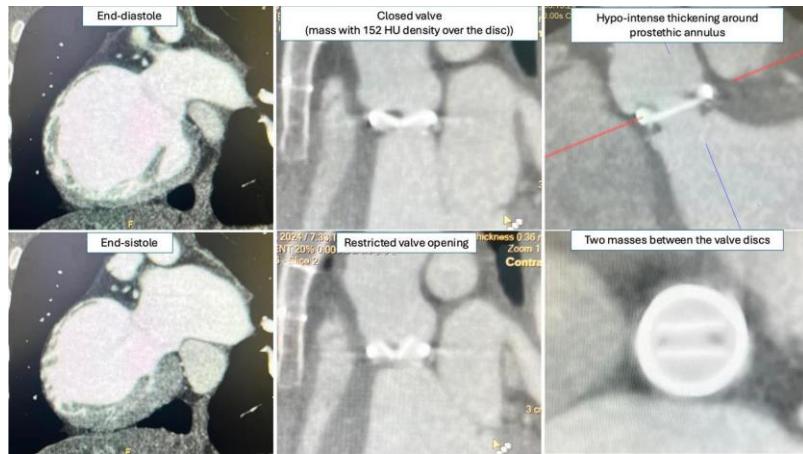
Background: Distinguishing pannus from thrombus is essential due to their differing treatments.

Case: A 14-year-old female with history of perimembranous ventricular septal defect closure and urgent mechanical aortic valve replacement (Medtronic No.18) following a surgical complication presented with subacute dyspnea and fatigue. Bloodwork showed elevated NT-proBNP and negative troponin I. Echocardiography revealed moderately reduced ejection fraction and aortic valve obstruction, but it was inconclusive in distinguishing pannus from thrombus.

Abstract Body: **Decision-making:** CCT revealed a reduced disc opening angle (45° and 50°), hypointense annular thickening, and two non-mobile high-attenuation masses (154 HU and 250 HU), strongly suggesting pannus. CCT also identified an infarct in the anterior descending and circumflex artery territories, with a LVEF of 35%. An invasive coronary angiogram showed no obstructive lesions, suggesting a prior surgical complication as the cause. Surgery was deemed the safest and most effective treatment option. Intraoperatively, pannus was confirmed and successfully excised.

Conclusion: A high-attenuation mass (HU≥145) strongly favors pannus over thrombus, with a sensitivity of 87% and specificity of 95%. This case

highlights the value of CCT in accurately differentiating between pannus and thrombus, while also providing critical insights into valve prosthesis function and identifying post-surgical complications.



Control Number: 25-CCC-249-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-49
49

Topic 1: Multimodal Imaging

Publishing Title: CONGENITAL ABSENCE OF THE LEFT CIRCUMFLEX ARTERY: A RARE CORONARY ANOMALY MIMICKING OBSTRUCTIVE DISEASE

Adriel Ismael Alonso Batun, SR, Moises Leonardo Luna Morales, Jesus Antonio Martinez Zapata, Valeria Lugo Niebla, Alejandro Vazquez Calderon, Roberto Andre Moguel Valladares, Roger Cauich Ake, Jeanny Fernanda Chapuz Magaña, Joan Manuel Johnson Herrera, Amonario Olivera Mar, Joaquin Jimenez Castellanos, Miguel Santularia Tomas, Hospital Regional Alta Especialidad de la Península de Yucatán, Mérida, Mexico

Background: Congenital coronary anomalies are rare but clinically relevant, particularly when presenting with symptoms mimicking coronary artery disease. The congenital absence of the left circumflex artery (LCX) is extremely rare and can simulate chronic total occlusion on angiography.

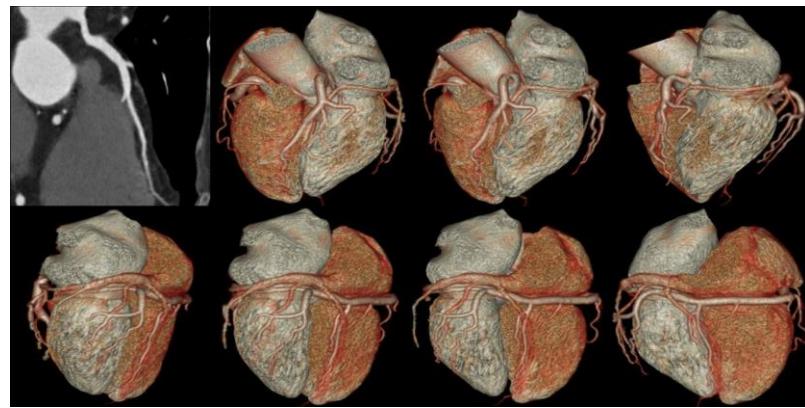
Case: A 64-year-old woman with well-controlled hypertension and exertional chest pain of eight years' duration (CCS Class II) was evaluated.

Abstract Body: Stress-induced angina occurred with stair climbing or emotional stress. ECG and echocardiogram were unremarkable. Cardiac CT angiography revealed the congenital absence of the LCX, with a superdominant right coronary artery supplying the lateral wall.

Decision-making: Given the patient's exertional angina and normal ECG and echocardiogram, cardiac CT angiography was performed to rule out occlusion or anatomical variants. It revealed congenital absence of the LCX and a superdominant right coronary artery, explaining flow redistribution and exertional ischemia. This avoided unnecessary invasive testing.

Conservative management with medical therapy and clinical follow-up was selected.

Conclusion: Congenital absence of the LCX is a rare but benign coronary anomaly that may cause angina due to flow redistribution. Non-invasive imaging, especially CCTA, is crucial for accurate diagnosis and management. Recognizing this condition helps avoid misdiagnosis and unnecessary treatment. Fewer than 60 cases have been reported, with a prevalence of 0.003% to 0.067%.



Control Number: 25-A-284-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-50

50

Topic 1: Multimodal Imaging

Publishing Title: CORRELATION BETWEEN CORONARY CALCIUM AND FRACTIONAL FLOW RESERVE BY COMPUTED TOMOGRAPHY IN ADULTS WITH CORONARY ARTERY DISEASE.

Victoria Servin, Ana M. Rosas Vazquez, Laura Victoria Torres-Araujo, Moises

Author Block: Jimenez Santos, Jorge Alberto Silva Estrada, Grupo CT Scanner, Mexico, Mexico

Background: Traditionally, diagnosis and risk stratification in patients with suspected CAD have been based on CAC-DRS, given its prognostic value in predicting cardiovascular events. The introduction of FFR-CT has enabled noninvasive assessment of the hemodynamic impact of coronary lesions, improving diagnostic accuracy without requiring invasive interventions. It has been observed that a high calcium burden can interfere with the interpretation of stenosis severity and even affect image reconstruction quality.

Abstract Body: **Methods:** An observational, cross-sectional, analytical, and retrospective study was conducted from August 2022 to December 2024 with adults with suspected coronary artery disease who underwent cardiac CT angiography during the study period and post-processed FFR-CT.

Results: In this study, an inverse correlation was identified between coronary calcium burden and computed tomography FFR-CT values in patients with coronary artery disease. This correlation was statistically significant in the right coronary artery ($\rho = -0.206$; $p = 0.030$) and left anterior descending artery ($\rho = -0.227$; $p = 0.007$), but not in the left circumflex artery. Furthermore, when patients were classified according to

their calcium score (CAC-DRS), it was observed that the greater the calcific burden, the higher the proportion of patients with FFR-CT suggestive of ischemia (≤ 0.75), even in the absence of clinical symptoms. Notably, all patients without evidence of calcium had $\text{FFR-CT} > 0.8$, while in those with > 1000 AU of calcium, up to 13.2% in the right coronary artery and 10.3% in the left anterior descending artery had FFR-CT indicative of functional ischemia.

Conclusion: There is an inverse correlation between coronary calcium burden and FFR-CT values in adults with coronary artery disease, particularly in the right and left anterior descending arteries. As CAC-DRS increases, so does the likelihood of having a pathological FFR-CT, suggesting a higher risk of functional ischemia. These results support the complementary use of CAC-DRS as a predictive and stratifying tool, particularly useful in planning diagnostic studies and making noninvasive therapeutic decisions.

Control Number: 25-CCC-382-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-51

51

Topic 1: Multimodal Imaging

Publishing Title: COMPLEX CONGENITAL PULMONARY STENOSIS IN AN ONCOLOGIC PATIENT: A MULTIDISCIPLINARY, IMAGING-GUIDED SURGICAL APPROACH

Author Block: Jeniseth Atencio, Carolina Vega, Gloria O'Neill, Pedro Echeverria, Lizeth Saldana, Jose Aguirre, Centro Nacional Especializado Cardiovascular y Toracico, Panama, Panama

Background: In adult patients with complex right ventricular outflow tract (RVOT) obstruction, multimodality imaging is essential for accurate anatomical assessment and clinical decision-making.

Case: A 45-year-old woman scheduled for cervical cancer surgery underwent preoperative evaluation due to dyspnea and a systolic murmur. Transthoracic echocardiography revealed severe pulmonary valve stenosis (mean gradient 45 mmHg, valve area 1.0 cm²) and infundibular hypertrophy causing subvalvular obstruction (28 mmHg gradient) with preserved right ventricular function (Fig 1) Cardiac CT confirmed multilevel RVOT obstruction, dilated main pulmonary artery, and ruled out shunts or anomalous venous return. (Fig 2A, 2B)

Decision-making: A multidisciplinary team decided to perform cardiac surgery before oncologic treatment due to the risk of perioperative hemodynamic instability. The patient underwent pulmonary valve commissurotomy and infundibular muscle resection without complications.

Conclusion: This case highlights the role of multimodality imaging in diagnosing RVOT obstruction and optimizing treatment sequencing in patients with concurrent cardiac and oncologic conditions.

Abstract Body:

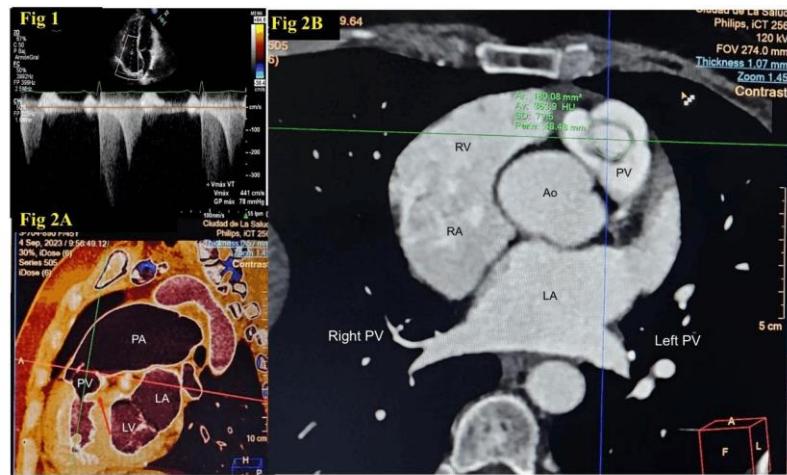


Fig. 1 Transthoracic echocardiogram showing double gradient at the tricuspid valve level. **Fig. 2.** Cardiac TC, **2A** Sagittal plane-3D reconstruction. **2B** axial plane.

Control Number: 25-CCC-399-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-52

52

Topic 1: Multimodal Imaging

Publishing Title: COR TRIATRIATUM SINISTER: A MULTIMODAL DIAGNOSTIC APPROACH

Samuel Bencosme, Katihurca Almonte, Cleysi Galva, Maria Natividad Diaz Estrella, Edgar D. Cadena Barranco, Jonathan Rodríguez, Ivan Nuñez, Génesis Espinal, Jennifer Lugo, Esther Bueno, ROSA GENESIS MEJIA MARTE, Johanny Liliana Bonilla Moya, Maykel Tapia, Jose Acevedo, José Ramón Kahdafi Rivera Acosta, Nelson Acosta, Jorge Luis Guerrero Gómez, Wilnelia Acosta, ASOCIACION INSTITUTO DOMINICANO DE CARDIOLOGIA, SANTO DOMINGO, DE, Dominican Republic

Background: COR TRIATRIATUM SINISTER IS A RARE CONGENITAL ANOMALY (0.1-0.4% INCIDENCE), CHARACTERIZED BY A FIBROMUSCULAR MEMBRANE DIVIDING THE LEFT ATRIUM (LA) INTO TWO CHAMBERS.

Case: A 64-YEAR-OLD WOMAN WITH DIABETES AND HYPERTENSION, PRESENTED WITH DYSPNEA PALPITATIONS, LEG EDEMA AND BIBASILAR CRACKLES. ELECTROCARDIOGRAM REVEALED ATRIAL FIBRILLATION AND

Abstract Body: RIGHT BUNDLE BRANCH BLOCK. ECHOCARDIOGRAPHY SHOWED TWO LA CHAMBERS AND A MEAN GRADIENT OF 7 MMHG, SUGGESTING MITRAL STENOSIS-LIKE PHYSIOLOGY. ADDITIONAL FINDINGS: LEFT VENTRICULAR HYPERTROPHY, GRADE I DIASTOLIC DYSFUNCTION, AND PRESERVED EJECTION FRACTION (63%). CARDIAC MAGNETIC RESONANCE IMAGING CONFIRMED A MILD MITRAL REGURGITATION, NO SEPTAL DEFECTS, AND A FIBROMUSCULAR BAND DIVIDING THE LA CHAMBER INTO A PROXIMAL CHAMBER (RECEIVING ALL PULMONARY VEINS) AND A DISTAL CHAMBER

(CONTAINING THE LA APPENDAGE), BOTH CONNECTED BY A 10 MM ORIFICE.

Decision-making: SYMPTOMS RESULT FROM OBSTRUCTION AND ATRIAL FIBRILLATION. THE PATIENT'S MEDICAL THERAPY FOCUSED ON TREATMENT OF HEART FAILURE AND CARDIAC ARRHYTHMIA. TREATMENT INCLUDED DIGOXIN, WARFARIN, FUROSEMIDE, DAPAGLIFLOZIN, SACUBITRIL/VALSARTAN, AND EPLERENONE.

Conclusion: SURGERY IS INDICATED WHEN OBSTRUCTION CAUSES A SIGNIFICANT GRADIENT. IN THIS CASE, IN THE ABSENCE OF OTHER DATA ON SEVERITY, SUCH AS PULMONARY ARTERIAL HYPERTENSION, AND AFTER SHOWING IMPROVEMENT IN SIGNS AND SYMPTOMS WITH DRUG THERAPY, IT WAS DECIDED TO CONTINUE CONSERVATIVE MANAGEMENT.

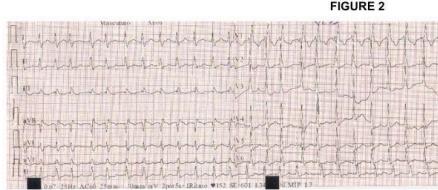
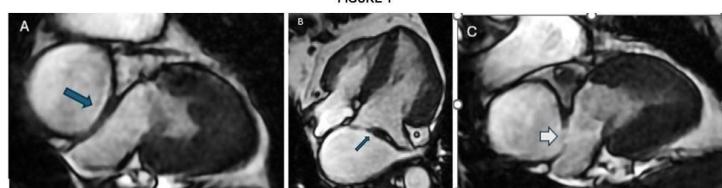


FIGURE 1. Two-dimensional echocardiogram. **A.** Long parasternal section shows the LA divided by a fibromuscular membrane (blue arrow) into an anterior and a posterior chamber. **B.** Apical 4-chamber color Doppler section shows flow from the posterior to the anterior chamber (red arrow) and its passage through the mitral valve (blue arrow). **C.** Continuous-wave Doppler shows flow that behaves like moderate systolic-diastolic mitral stenosis. **FIGURE 2.** Cardiac magnetic resonance. **A** and **B.** 2-chamber and 4-chamber cine images showing a fibromuscular band (blue arrow) dividing the LA into two chambers. **C.** 2-chamber cine images showing a small 10 mm orifice (white arrow) connecting the two chambers. **FIGURE 3.** 12-lead electrocardiogram. RV: right ventricle; A: Aorta, LV: left ventricle; PC: Posterior chamber; AC: Anterior chamber; LA: Left atrium.

Control Number: 25-CCC-447-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-53

53

Topic 1: Multimodal Imaging

Publishing Title: TRICUSPID ATRESIA IN ADULTHOOD: MULTIMODAL ASSESSMENT WITH ECHOCARDIOGRAPHY AND CARDIOPULMONARY EXERCISE TESTING IN A CASE OF COMPLEX UNIVENTRICULAR PHYSIOLOGY

Author Block: Jose Jesus Aguilar, Militza De los Santos, Hugo Velazquez, Juan M. García, Huitzilihuitl Saucedo, Andrea Ibarra, Gabriela Rojas, Hospital Ángeles Lomas, Huixquilucan, Mexico

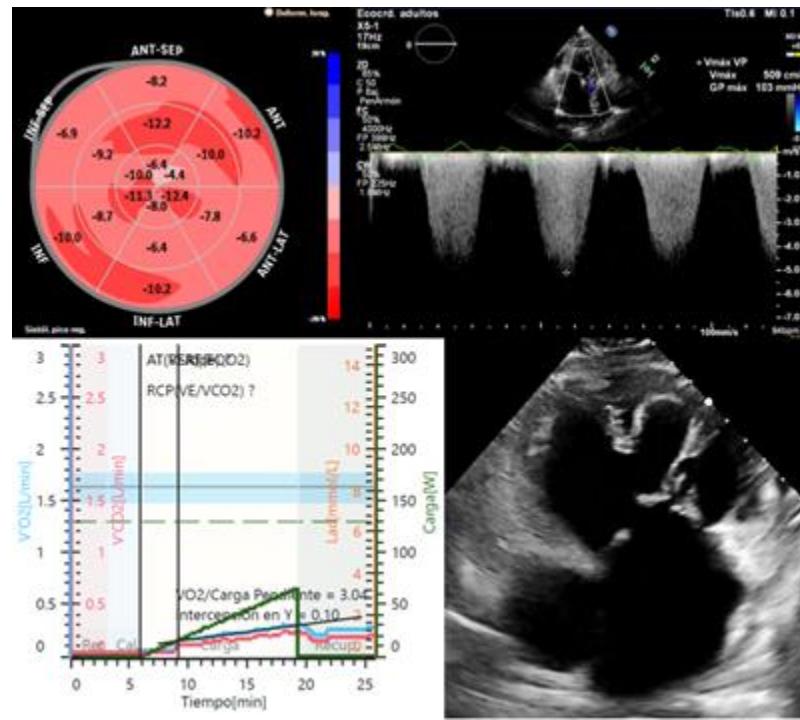
Background: A 47-year-old woman with uncorrected congenital heart disease since childhood, lost to follow-up, presented with progressive functional decline.

Case: She reported 6 months of dyspnea on moderate exertion. Resting vitals were normal except for hypoxemia (SpO_2 80%). Echocardiography revealed tricuspid atresia (type IIb) with large atrial septal defect (40mm), ventricular septal defect (25mm), univentricular physiology, severe pulmonary stenosis (max gradient 103 mmHg), and TGA. VEF was 55%, but with elevated filling pressures (E/e' 14) and reduced strain (-13%). Cardiopulmonary testing showed severe impairment: peak VO_2 4.21 mL/min/kg (19% predicted), O_2 pulse 2.2 mL (22%), and elevated VE/VCO_2 slope (96).

Decision-making: Multimodal assessment confirmed unoperated tricuspid atresia with advanced hemodynamic compromise. The abnormal exercise test (markedly reduced VO_2 and elevated VE/VCO_2) indicated high-risk physiology, guiding referral for heart transplantation evaluation. Echocardiography and CPET synergistically delineated anatomy, function,

and prognosis.

Conclusion: This case underscores the role of integrated imaging and functional testing in adult congenital heart disease to stratify risk, monitor decline, and prioritize advanced therapies like transplantation.



Control Number: 25-A-448-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-54

54

Topic 1: Multimodal Imaging

Publishing Title: EXTERNAL VALIDATION OF A MULTIPARAMETRIC ECHOCARDIOGRAPHIC SCORE FOR MALIGNANCY PREDICTION IN CARDIAC MASSES IN COLOMBIA

Edwin De Jesus De La Peña-Arrieta, Juan José Pino-Vélez, Luisa Fernanda Flórez García, José Emilio Agámez-Gómez, Juan Carlos Chavarriaga, Juan Pablo Flórez Muñoz, Luisa Fernanda Durango Gutiérrez, Gustavo Adolfo

Author Block: Castilla Agudelo, Jairo Rendón Giraldo, Santiago Giraldo Ramírez, Juan Manuel Senior, Edison Muñoz Ortíz, Fabian Jaimes, Jairo Gandara, Hospital San Vicente Fundación, Medellín, Colombia, Hospital Pablo Tobón Uribe, Clínica Cardio VID, Universidad de Antioquia, Medellín, Colombia

Background: Cardiac masses represent a diagnostic challenge due to their heterogeneity and potential malignancy. The Diagnostic Echocardiographic Mass (DEM) score is a multiparametric tool developed to predict malignancy based on transthoracic echocardiographic features. However, no prior external validation studies of the DEM score have been reported. This study aimed to evaluate the diagnostic performance and reproducibility of the DEM score in a multicenter Latin American cohort of cardiac masses.

Methods: We conducted a multicenter retrospective validation study of the DEM score in patients with cardiac masses across three tertiary hospitals in Colombia. Malignancy status was determined through histopathology, or expert consensus. Echocardiographic images were blindly assessed by four independent echocardiography experts applying the six DEM variables. Diagnostic performance was evaluated by area under the ROC curve (AUC),

Abstract Body:

sensitivity, specificity, predictive values, likelihood ratios, Hosmer-Lemeshow test and calibration curves. Interobserver agreement was evaluated using intraclass correlation coefficient (ICC) and Fleiss' kappa.

Results: Among 85 patients analyzed, 22 (25.9%) had malignant masses. The weighted DEM score showed excellent discrimination AUC = 0.894 (95% CI 0.828-0.960), and the unweighted score performed similarly AUC = 0.878 (95% CI 0.810-0.945). The optimal cutoff (≥ 4 for weighted; ≥ 3 for unweighted) achieved 91% sensitivity, 79.4% specificity, and 96.1% negative predictive value. Calibration was adequate for the weighted model (Hosmer-Lemeshow $p = 0.37$). Interobserver agreement was good (ICC = 0.73); Fleiss' kappa for individual items was high for most variables, with values up to 1.00.

Conclusion: This study provides the first external validation of the DEM score, confirming its high diagnostic accuracy, reproducibility, and clinical applicability for malignancy prediction in cardiac masses.

Control Number: 25-CCC-471-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-55

55

Topic 1: Multimodal Imaging

Publishing Title: INTRAVENOUS LEIOMYOMATOSIS WITH INTRACARDIAC EXTENSION: A RARE CAUSE OF CARDIAC INVOLVEMENT WITH SIGNIFICANT COMPLICATIONS

Author Block: Ermilo Echeverria, Javier Casillas, Alan Livingstone, Luis Pech, University of Miami, Miami, FL, USA, Universidad Marista de Merida, Merida, Mexico

Background: Intravenous leiomyomatosis (IVL) is a benign smooth muscle tumor that extends into venous channels, originating from either a uterine myoma or the vessel wall. Intracardiac extension is rare but critical, as tumor prolapse into the right ventricle may impair cardiac function and lead to sudden death.

Case: A 63-year-old female presented with new-onset abdominal discomfort and superficial abdominal varices. Computed tomography revealed a large intraluminal mass within the distal inferior vena cava (IVC), inseparable from the vessel wall and extending proximally to the right atrium. Transthoracic echocardiography confirmed the intracaval trajectory and intracardiac extension of the mass.

Decision-making: Two-stage surgical resection was performed. In the first stage, the tumor located distal to the renal hilum was excised. In the second stage, the tumor extending near the hepatic vein outflow and right atrium was resected. Reconstruction of the most proximal IVC was performed to preserve hepatic venous return, and a right nephrectomy was also required. Final pathology confirmed a primary IVC leiomyosarcoma.

Conclusion: IVL can mimic malignancy or thrombus-in-transit and should

be suspected in women with a history of leiomyoma and intravascular mass. Involvement of cardiac valves may necessitate a complicated surgery, and diffuse tumor infiltration from vessel wall origins often prevents complete resection, especially with cardiac extension.

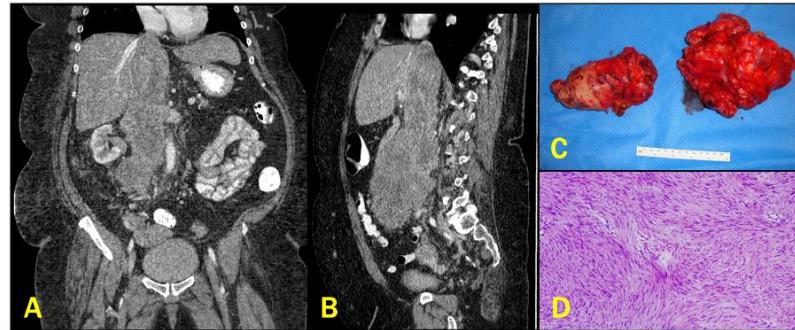


Figure 1. (A) Coronal contrast-enhanced CT scan showing a large intraluminal mass within the inferior vena cava, extending to the right atrium. (B) Sagittal reconstruction confirming the cranial trajectory of the mass along the IVC. (C) Gross pathology of the resected tumor showing two lobulated specimens with smooth external surfaces. (D) Histological section (H&E, 10 \times) revealing interlacing bundles of spindle cells consistent with leiomyosarcoma.

Control Number: 25-A-209-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-56

56

Topic 1: Valvular Diseases

Publishing Title: NON-RHEUMATIC MITRAL VALVE DISEASE IN THE CONTEXT OF SYSTEMIC LUPUS ERYTHEMATOSUS: AN UNUSUAL MANIFESTATION OF A RARE DISEASE

Author Eduardo Nieves Paredes, Guillermo Antonio Llamas Esperon, Daniel Gámez González, Francisco Javier Campos Hernández, JUAN ANTONIO ROBLES
Block: JAIME, Omar Alejandro Morales Vazquez, Zoe Jonathan Rivera Sanchez, Hospital Cardiologica Aguascalientes, Aguascalientes, Mexico

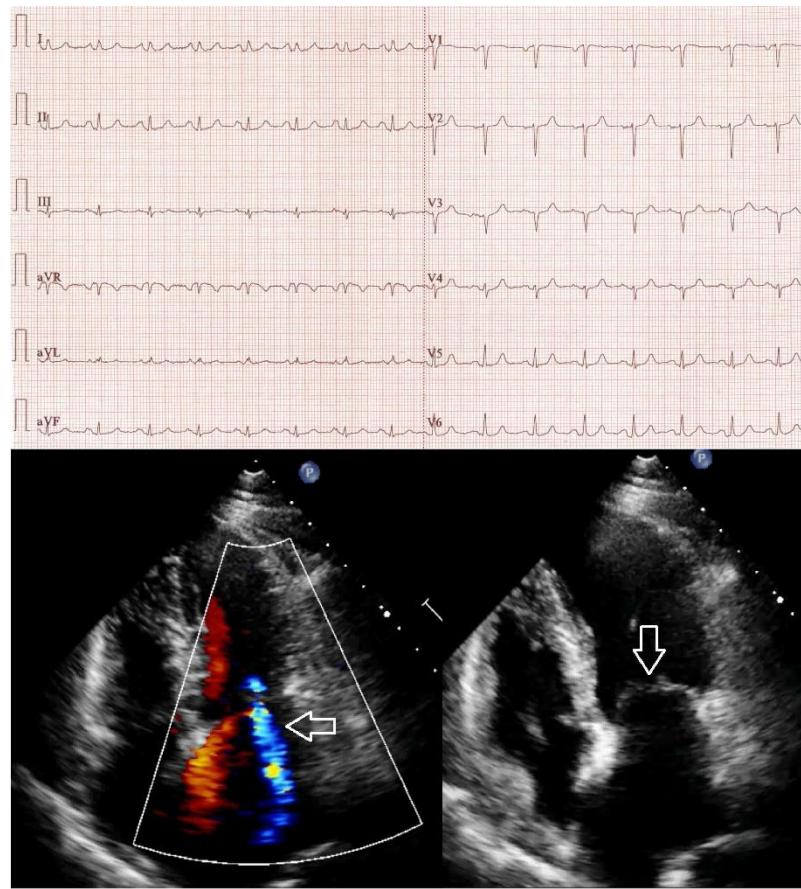
Background: Systemic lupus erythematosus (SLE) is an autoimmune disease with infrequent cardiovascular involvement. Valvular disease occurs in 18%, mainly as Libman-Sacks endocarditis (LSE). Mitral regurgitation is common; however, stenosis is rare (4-6%) and may be related with antiphospholipid and anticardiolipin antibodies.

Methods: A 32-year-old woman with SLE and lupus nephritis (GFR 55 ml/min), treated with prednisone, hydroxychloroquine, and mycophenolic acid, presented with fatigue and resting dyspnea (NYHA IV).

Abstract Body: **Results:** ECG revealed biatrial dilatation. Echocardiogram showed severe mitral valve thickening with doming, a stenosis with mean gradient of 16 mmHg, planimetric valve area of 1.0 cm², and mild regurgitation due to chordal retraction (type IIIa). The lupus anticoagulant was 41.6 seconds, anticardiolipin IgG at 44 U/mL and anti-β2 glycoprotein IgG at 43.6 U/mL. Streptococcal tests were negative; ASO titer was 120 IU/mL. The patient received intravenous furosemide at 1 mg/kg. Anticoagulation was not indicated, as atrial fibrillation was ruled out and the stenosis was not

rheumatic.

Conclusion: Valvular damage in SLE is most often associated with regurgitation. Severe stenosis is rare and may reflect autoimmune mechanisms linked to antiphospholipid antibodies. This case highlights the importance of early identification and tailored management, given the absence of standard anticoagulation indications in non-rheumatic stenosis without arrhythmia or thrombotic events.



Control Number: 25-CCC-211-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-57

57

Topic 1: Valvular Diseases

Publishing Title: CHAOTIC SOCIAL ENVIRONMENT AND RISK OF SYSTEMIC EMBOLISM. BACTERIAL ENDOCARDITIS IN NATIVE MITRAL VALVE

Author Block: Jesús Alejandro Ramírez-Guzmán, Roberto Martínez, Myrlene Rodríguez-Brito, Hospital General Tijuana, Tijuana, Mexico

Background: Intravenous drug (IVD) abuse is a cause for concern among young people. There was a four-fold increase in hospital admissions for IVD use associated with infective endocarditis from 2005 to 2016, and this is associated with septic embolism.

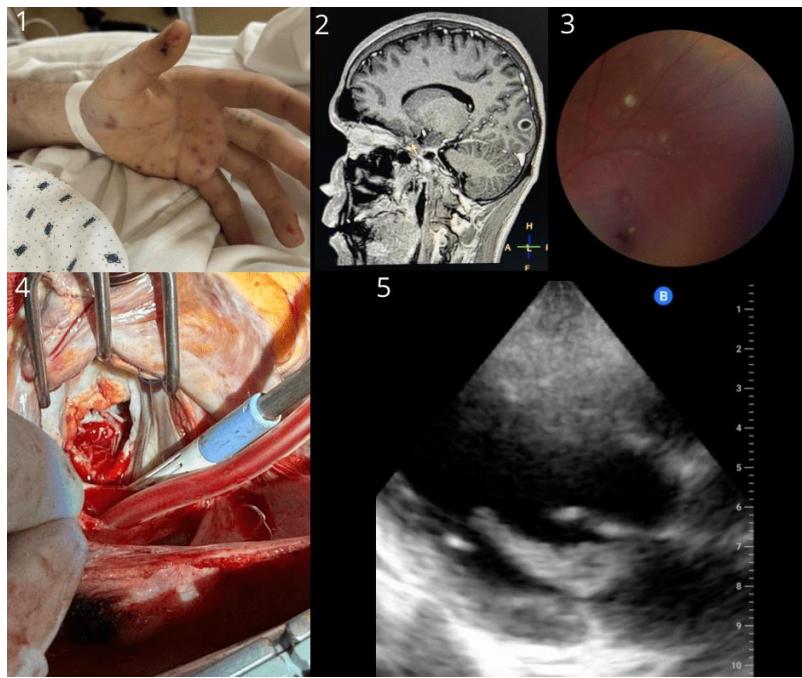
Case: 21 year old male IVD user began two weeks prior to admission with malaise, fever and skin lesions on extremities. One week prior to admission he presented photophobia and loss of strength. Physical examination revealed macular rash, splinter hemorrhages, retinal spots, painless

Abstract Body: macules on palms and soles and a holosystolic murmur. Cardiac POCUS was performed and revealed a 4 cm hyperechoic mobile mass located in the posterior mitral valve. Serial blood cultures were performed, finding *S. aureus*.

Decision-making: Extracardiac manifestations are suggestive of septic microemboli. Cardiac surgery was performed, finding friable tissue and both mitral valves with vegetations. Mitral valve replacement was performed.

Conclusion: In this patient with a chaotic social environment and history of IVD use without access to sterile equipment, his risk of endocarditis increased. Despite being a simple diagnosis, we do not have accurate data on the epidemiology of this disease, which is linked to a social problem in

our country.



Control Number: 25-CCC-214-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-58

58

Topic 1: Valvular Diseases

Publishing Title: MULTIVALVULAR ENDOCARDITIS IN A PATIENT WITH HISTORY OF VENTRICULAR SEPTAL DEFECT: CLINICAL AND SURGICAL DILEMMA

Author Block: Adriel Ismael Alonso Batun, SR, Miguel Santularia Tomas, Joan Johnson Herrera, Amonario Olivera Mar, Moises Leonardo Luna Morales, Jesus Antonio Martinez Zapata, Roberto Andre Moguel Valladares, Alejandro Vazquez Calderon, Valeria Lugo Niebla, Roger Cauich Ake, Hospital Regional Alta Especialidad de la Península de Yucatán, Mérida, Mexico

Background: Multivalvular endocarditis involving the aortic and pulmonary valves is rare, especially in adults with congenital heart disease such as repaired ventricular septal defect (VSD).

Case: A 43-year-old male with two prior VSD repairs, no comorbidities, presented with dyspnea, nocturnal fever, and weight loss. At another hospital, large vegetations were found on the aortic and pulmonary valves, both with severe regurgitation and right ventricular dysfunction. On admission, he was in septic shock with decompensated heart failure. Echocardiogram showed severe aortic, pulmonary, and tricuspid regurgitation, systolic pulmonary artery pressure of 95 mmHg, right ventricular FAC 24%, and preserved left ventricular function.

Decision-making: He met urgent surgical criteria due to severe valvular dysfunction and pulmonary hypertension. Per 2023 ESC guidelines, empiric antibiotics and early surgery were indicated. Pulmonary valve endocarditis is rare and blood cultures were not available. He underwent double valve replacement with inotropic support. Postoperatively, he remained in

cardiogenic shock requiring VA-ECMO. Despite support, he developed multiorgan failure and died days later.

Conclusion: This case reflects the complexity and high mortality of multivalvular endocarditis in congenital heart disease. Early surgery and multidisciplinary care are essential, but outcomes remain poor in advanced cases.



Control Number: 25-CCC-216-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-59

59

Topic 1: Valvular Diseases

Publishing Title: NON-SURGICAL TREATMENT OF MECHANICAL MITRAL VALVE PROSTHESIS THROMBOSIS: A CASE OF SUCCESS WITH THROMBOLYTIC THERAPY

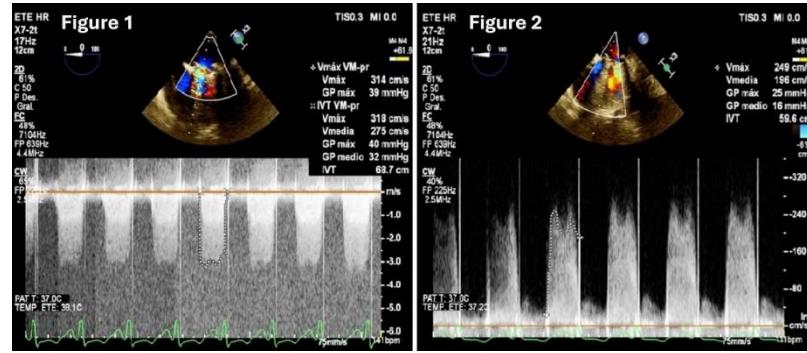
Author Block: Jose Emmanuel Flores Solis, Mario Robin Perez Barrios, Pablo Esteban Perez Pinetta, Ismael Guzman Melgar, RODOLFO Gutiérrez, Gustavo Adolfo Sotomora, SR, Hospital Roosevelt, Guatemala, Guatemala

Background: The annual incidence of mitral prosthetic thrombosis ranges from 0.5% to 4%, being rare but severe.

Case: A 25-year-old female patient, with a history of mechanical valve prosthesis placement in 2013 due to endocarditis, presents with a 15-day history of dyspnea. Physical examination reveals bilateral subcrepitant rales, and no opening snap is heard from the mechanical prosthetic valve. The electrocardiogram shows sinus tachycardia. Laboratory results reveal an INR of 1.23, Pro-BNP of 3600 pg/mL. The patient exhibits clinical deterioration, requiring mechanical ventilation and vasopressor support. Transthoracic echocardiogram shows a maximum velocity (Vmax) of 2.58 cm/s and a mean gradient (MG) of 16 mm Hg. Transesophageal echocardiogram (TEE) shows a thrombus measuring 12x10 mm attached to the mitral prosthesis ring, causing severe obstruction with a Vmax of 3.14 cm/s and an MG of 32 mm Hg (Figure 1). Thrombolysis with Alteplase is performed, and follow-up TEE at 48 hours shows a Vmax of 2.49 cm/s and a MG of 16 mm Hg (Figure 2). The patient shows adequate clinical progression, with dose titration using Warfarin, an INR within target range, and a normally functioning mitral prosthesis.

Decision-making: According to clinical guidelines, the treatment for prosthetic valve obstruction should be surgical, with thrombolysis being an option based on existing evidence.

Conclusion: Thrombolytic therapy should be considered a viable option for the treatment of mitral prosthetic valve thrombosis.



Control Number: 25-CCC-349-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-60

60

Topic 1: Valvular Diseases

Publishing Title: UNMASKING SUBAORTIC STENOSIS IN ADULTHOOD: A CASE OF SUBAORTIC MEMBRANE RESECTION

Author Block: Jeniseth Atencio, Robbin Urieta, Gustavo Lau, Edgar Aviles, Jose Aguirre, Centro Nacional Especializado Cardiovascular y Toracico, Panama, Panama

Background: Subvalvular aortic stenosis is the second most common form of aortic stenosis and accounts for 6.5% of congenital heart diseases in adults. Although rare in this population, it may present with variable symptoms and outcomes.

Case: A 63-year-old woman with no relevant history presented with 6 months of progressive exertional dyspnea. Exam revealed a grade 3/6 systolic murmur at the aortic area radiating to the neck. Basic labs, ECG, and chest X-ray were unremarkable. Echocardiography showed normal LVEF and

Abstract Body: a subaortic membrane (Fig A) causing significant LVOT obstruction (Fig B) (peak velocity 4.99 m/s, mean gradient 56 mmHg), mild aortic regurgitation, and minimal stenosis. Cardiac computed tomography confirmed a subaortic membrane measuring 16 mm in diameter (Fig D); coronary angiography showed no significant lesions.

Decision-making: Surgical resection was performed uneventfully (Fig C). The patient was discharged one week later. At 12-month follow-up, she remains asymptomatic. Echocardiography shows LVEF 55%, peak velocity 4.1 m/s, and mean gradient 33 mmHg.

Conclusion: This case underscores the importance of considering subaortic stenosis in adults with unexplained exertional symptoms. Surgical resection

of a subaortic membrane can lead to excellent clinical and hemodynamic outcomes. This was the first such case managed at our institution.

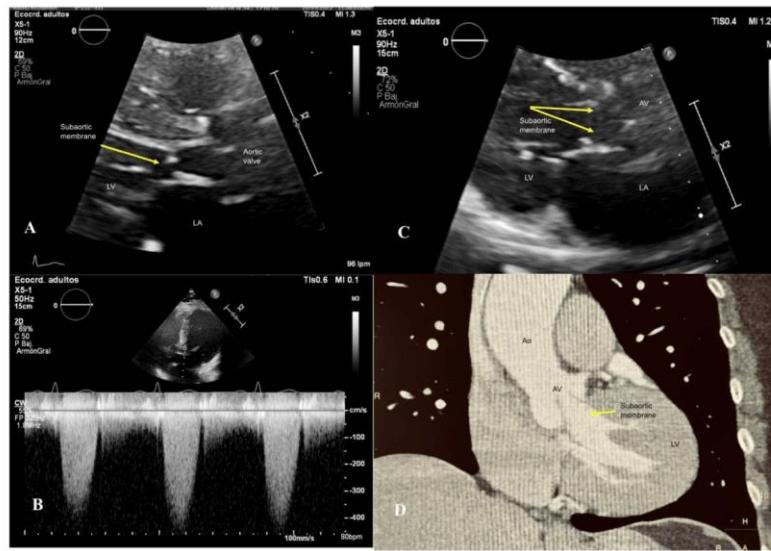


Figure 1. Transthoracic echocardiographic images illustrating (A) the subaortic membrane in the LVOT (yellow arrow), (B) continuous-wave Doppler showing a peak velocity of 4.99 m/s across the LVOT, and (C) postoperative resolution of the subaortic membrane with improved flow dynamics, (D) CT image confirms anatomical presence and extent of the membrane.

Control Number: 25-CCC-379-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-61

61

Topic 1: Valvular Diseases

Publishing Title: TRANSCATHETER AORTIC VALVE REPLACEMENT FOR MANAGEMENT OF AORTIC PROSTHESIS DYSFUNCTION IN A FRAIL PATIENT WITH HEART FAILURE

Author Francisco Terán, Nohra Piedad Romero, Carlos Andres Carvajal, Karen Morales, Javier Maldonado, Nadia Sabbag, Andres Felipe Buitrago,

Block: Fundación Santa Fe de Bogotá, Bogota, Colombia, Universidad de los Andes, Bogota, Colombia

Background: 72M post AVR developed decompensated HF from severe bioprosthetic dysfunction, high surgical risk. Heart Team favored TAVI per ESC guidelines.

Case: 72-year-old male with prior aortic valve/root replacement for severe AI and paroxysmal AF presented with 3-month worsening dyspnea (NYHA IV) and grade 2 edema. Functionally dependent (Barthel 30, Karnofsky 40), on Dabigatran. Symptoms: PND, orthopnea, bendopnea, anorexia, 10 kg weight loss. Exam: BP 109/53 mmHg, HR 80 bpm, RR 18 bpm, JVD, diastolic murmur, lower limb edema, cachexia. ECG: AF with controlled ventricular response, anteroseptal ITW. Labs: NT-proBNP 17666 pg/ml, CA-125 113.9 U/mL, creatinine 1.39 mg/dL. TEE: concentric LV remodeling, LVEF 62%, mitral sclerosis with moderate MR, severely insufficient bioprosthetic aortic valve with normal gradients (AT: 85 ms).

Decision-making: Decompensated HF with preserved LVEF of valvular etiology required hospitalization and guideline-directed diuretics. Cardiac cachexia addressed multidisciplinarily. Due to high surgical risk from severe

bioprosthetic aortic valve dysfunction/insufficiency, Heart Team recommended TAVI per ESC. Size 29 valve implanted without complications.

Conclusion: Managing HF secondary to prosthetic valve dysfunction is complex. Multidisciplinary Heart Team decisions are key. Minimally invasive TAVI is valuable for correcting valve dysfunction/improving outcomes in high-risk bioprosthetic failure. More research on TAVI's impact is needed.



Control Number: 25-CCC-393-ACCLA

Session Title: Friday Morning Poster Session

Session Time: Friday, September 19, 2025, 10:50 am - 11:20 am

Presentation Number: 40-62

62

Topic 1: Valvular Diseases

Publishing Title: DOUBLE ORIFICE MITRAL VALVE: A RARE DISEASE WITH UNUSUAL ASSOCIATED ANOMALIES

Author Natalia Gloria, JORGE EDUARDO HERNANDEZ DEL RIO, Tomas Miranda, Jesús Guillermo Rodríguez de la Torre, Oscar Sergio Lomeli Sanchez, **Block:** Christian González Padilla, Hospital Civil Fray Antonio Alcalde, Guadalajara, Mexico

Background: A double orifice mitral valve (DOMV) is a rare congenital anomaly that can progress to a range of complications. Its prevalence is 0.01% with no gender predilection and is frequently associated with other congenital anomalies, most commonly atrioventricular septal defect.

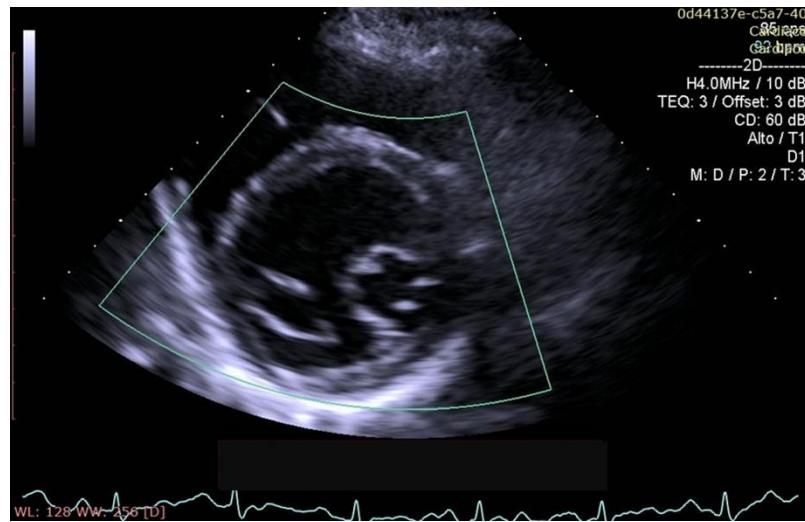
Case: A 27 year old woman with a history of aortic coarctation treated surgically in childhood, who presented with dyspnea on minimal exertion for the past year. Physical examination revealed a holosystolic murmur at the apex. Echocardiography revealed a mitral valve with a double orifice separated by a central fibrous band showing the spectacle and seagull sign in the parasternal short axis and two chamber view. The Doppler color examination reveals that each valve orifice obtains a corresponding diastolic flow. In addition, a bicuspid aortic valve with symmetric fusion of the right and left cusps was noted, resulting in moderate to severe aortic regurgitation. MRI confirmed findings.

Decision-making: The severity of the coarctation required early management in our patient's childhood. Twenty years later, the double mitral valve generated severe mitral insufficiency, a condition that required surgical

Abstract Body:

treatment. Repair of the valve was not possible, so a mechanical prosthesis was placed in the mitral and aortic position with adequate evolution.

Conclusion: Our case highlights a rare DOMV morphology and non-typical associations, emphasizing the role of echocardiography for timely diagnosis and intervention.



Control Number: 25-A-319-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-01
01

Topic 1: Cardiac Arrhythmias

Publishing Title: MYOCARDIAL INJURY AND PROCEDURAL TIMES IN ATRIAL FLUTTER ABLATION USING CATHETER ABLATION AND CRYOABLATION: A SYSTEMATIC REVIEW AND META ANALYSIS

Author Block: Ramón Adrián Magaña Dávalos, Carlos E. Vidal, Andrea Rodríguez, Martín Rodríguez, Karina I. Aldape, Fernanda Lara, María J. Gonzales, Valeria Gutiérrez, Anette M. Ríos, Nahid Perez, Sofía P. Flores, Universidad de Monterrey, San Pedro Garza García, Mexico, Universidad Autónoma de Baja California, Mexicali, Mexico

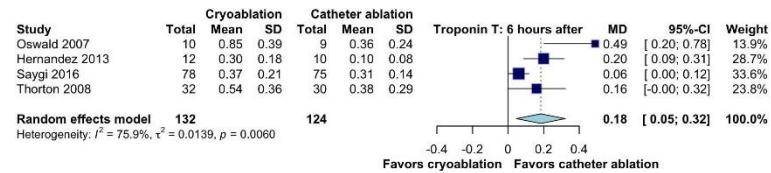
Background: Atrial flutter (AFL) is a supraventricular tachyarrhythmia that carries a heightened risk of macrovascular complications, such as stroke and transient ischemic attacks. This study seeks to compare the extent of myocardial injury, procedural duration, and fluoroscopy exposure between cryoablation (CrA) and catheter ablation (CA) in AFL patients.

Methods: A systematic search was conducted in the PubMed, Scopus, and MEDLINE up to March 16, 2025, including randomized controlled trials and cohort studies comparing CA with CrA in AFL patients.

Results: Six randomized controlled trials and five cohort studies, comprising 789 patients, were included. Procedural CK levels were significantly lower in the CA group (MD: 144.56; 95%: 36.81-252.30. Similarly, troponin T levels at 6 hours post-procedure were lower in the CA group (MD: 0.18; 95%: 0.05-0.32). Total ablation times were significantly shorter in the CA group (MD: 19.66 minutes; 95%: 2.18-37.14), as was total ablation duration (MD: 25.64 minutes; 95%: 8.19-43.09). Regarding fluoroscopy exposure time, no

significant differences were found between the two groups (MD: -2.93 minutes; 95%: -6.14 to 0.29).

Conclusion: This meta-analysis indicates that cryoablation causes more myocardial injury and takes longer than CA. CA was also faster overall, with similar fluoroscopy exposure in both techniques. These results suggest CA is a less damaging and more efficient option.



Control Number: 25-A-361-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-02

02

Topic 1: Cardiac Arrhythmias

Publishing Title: RADIATION REDUCTION IN AVNRT SLOW PATHWAY ABLATION: A META-ANALYSIS COMPARING REDUCED RADIATION AND CONVENTIONAL TECHNIQUES

Author Mario Cesar Torres Chavez, Francisco Antonio Ramos Pillado, Facultad de Medicina Mexicali, Universidad Autónoma de Baja California, Mexicali, Mexico, Instituto Nacional de Cardiología "Ignacio Chávez", Mexico City, Mexico

Block:

Background: Atrioventricular nodal reentrant tachycardia (AVNRT) is commonly treated with fluoroscopy-guided catheter ablation, exposing patients and operators to ionizing radiation. Fluoroscopy-reduced approaches using intracardiac echocardiography (ICE) or electroanatomic mapping (EAM) aim to minimize this exposure.

Abstract Body: **Methods:** We conducted a meta-analysis of studies published through August 2024 comparing fluoroscopy-reduced versus conventional AVNRT ablation. Outcomes included total fluoroscopy time (TFT), fluoroscopy dose (FD), complication rates, ablation time, and recurrences. Pooled relative risk (RR) and mean differences (MD) were calculated with 95% confidence intervals (CI) using a random-effects model.

Results: Nine studies (6 randomized trials, 3 observational) comprising 891 patients were included. Fluoroscopy-reduced ablation significantly decreased TFT (MD = -3.85 minutes; 95% CI: -4.94 to -2.76) and FD (MD = -11.32 mGy; 95% CI: -14.71 to -7.93). There were no significant differences in complications (RR = 1.03; 95% CI: 0.19-5.49) or recurrences (RR = 1.36; 95%

CI: 0.27-6.92).

Conclusion: Fluoroscopy-reduced techniques using ICE or EAM significantly lower radiation exposure in AVNRT ablation without increasing complications or recurrence risk. These strategies may be safely adopted in clinical practice to minimize radiation burden.

Figure 1. Arrhythmia recurrence

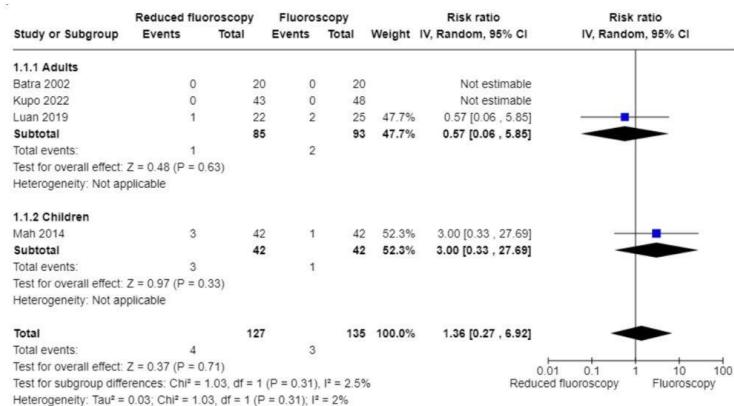
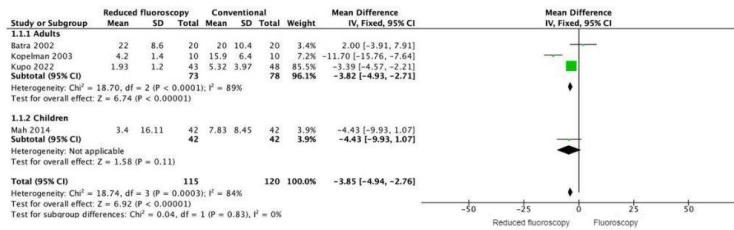


Figure 2. Fluoroscopy time



Control Number: 25-CCC-497-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-03
03

Topic 1: Cardiac Arrhythmias

Publishing Title: RHYTHM RESCUE IN SEPTIC SHOCK: RESCUE ABLATION OF REFRactory ATYPICAL ATRIAL FLUTTER IN A CRITICALLY ILL PATIENT

Author Block: Carlos Mejia, Frank D. Cañon, Felipe Cañas, Fundacion Valle del Lili, Cali, Colombia

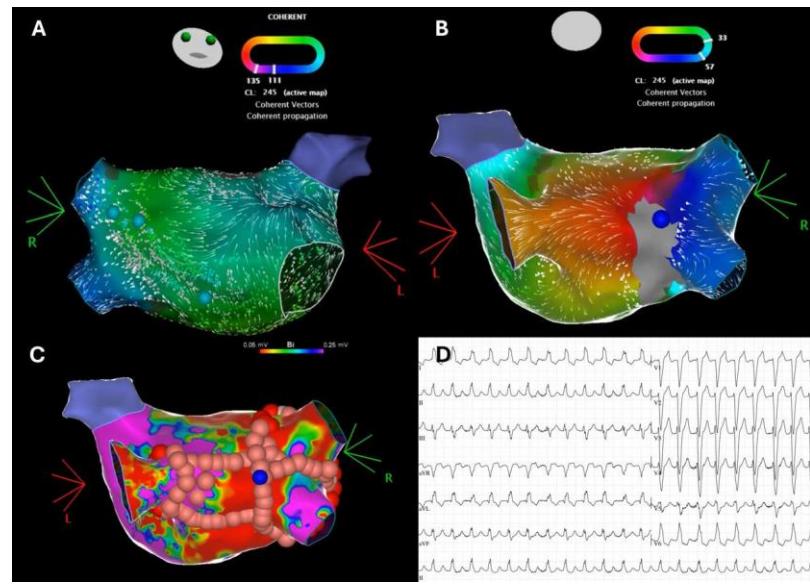
Background: Atrial arrhythmias in critically ill patients are often transient. However, they may significantly worsen hemodynamics, prompting consideration of advanced treatment strategies.

Case: A 72-year-old man (HF EF 45%, LBBB, COPD, diabetes, prior typical flutter ablation w/o PVI) presented with fever, chest pain, dyspnea, and atrial flutter with RVR requiring cardioversion. Admitted to ICU, diagnosed with septic shock (pulmonary TB, probable fungal co-infection). During a prolonged stay, he had recurrent flutter, failing multiple cardioversions and medications (amiodarone, digoxin, beta-blockers).

Abstract Body: **Decision-making:** Due to persistent arrhythmia and progressive hemodynamic decline, an urgent EP study was done. 3D mapping confirmed prior isthmus ablation and revealed a new posterior LA reentrant circuit. Ablation targeting the atypical flutter including pulmonary vein and posterior wall isolation was performed. The arrhythmia terminated during ablation with rapid clinical improvement.

Conclusion: This case shows how catheter ablation can be life-saving in critically ill patients with refractory atrial flutter causing cardiogenic compromise. It supports considering aggressive rhythm control when conventional therapies fail. The patient was arrhythmia-free at 1-year follow-

up.



Control Number: 25-A-404-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-04

04

Topic 1: Cardiac Arrhythmias

Publishing Title: ATRIAL FIBRILLATION AND COGNITIVE DECLINE: A CARDIOVASCULAR OPPORTUNITY FOR NEUROPROTECTION

Sarah Vargas, Alvaro Taveras, Samuel De Jesus Vasquez, Omarlyn Ruiz, Aileen Tolentino, Gabriela Martinez, Hospital Metropolitano de Santiago (HOMS), Santiago, Dominican Republic, Pontificia Universidad Católica Madre y Maestra (PUCMM), Santiago, Dominican Republic

Background: Atrial fibrillation (AF) is the most common sustained arrhythmia and a growing concern in aging populations. Recent evidence suggests a strong association between AF and the development of neurodegenerative diseases, including Alzheimer's disease and vascular dementia. This review explores shared pathophysiological mechanisms and emphasizes AF as a potential early marker and modifiable risk factor for cognitive decline

Abstract Body: **Methods:** A systematic search was conducted using PubMed, Elsevier, and Google Scholar to identify high-impact reviews, meta-analyses, and clinical trials published in the last five years. The terms atrial fibrillation, dementia, and Alzheimer's disease were used. Selected studies reported mechanisms, clinical associations, and outcomes such as hazard ratios and cognitive performance scores.

Results: The pathophysiological link between AF and neurodegeneration involves silent cerebral microinfarcts, chronic cerebral hypoperfusion due to reduced cardiac output, and systemic neuroinflammation. Longitudinal studies have shown a 30-40% increased risk of dementia in AF patients, even without clinical stroke (HR=1.40, 95% CI: 1.22-1.60, p<0.001).

Anticoagulation may reduce this risk, while the cognitive impact of rhythm control therapies remains under investigation.

Conclusion: AF is a significant and independent predictor of cognitive impairment and dementia. Its management presents an opportunity not only for stroke prevention but also for neuroprotection. Recognizing AF as a modifiable risk factor could guide early intervention strategies aimed at reducing the long-term burden of neurodegenerative disease in cardiovascular patients.

Control Number: 25-A-423-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-05

05

Topic 1: Cardiac Arrhythmias

Publishing Title: MULTIFACTORIAL ORIGINS OF ATRIAL FIBRILLATION: AN UPDATED REVIEW OF CLINICAL AND GENETIC RISK DETERMINANTS

Author Block: Alvaro Taveras, Licurgo Jacob Cruz, Samuel De Jesus Vasquez, Samela María Cabrera, Gabriela María Martínez, Hospital Metropolitano de Santiago (HOMS), Santiago, Dominican Republic, Pontificia Universidad Católica Madre y Maestra (PUCMM), Santiago, Dominican Republic

Background: Atrial fibrillation (AF) is the most common sustained arrhythmia worldwide, associated with increased morbidity and mortality due to complications such as stroke and heart failure. Despite advances in management, gaps remain in understanding the interplay between clinical and genetic factors driving its development.

Methods: A comprehensive literature review was conducted across PubMed, Elsevier, and AMBOSS databases, selecting 40 high-quality studies published between 2015 and 2024. Articles addressing clinical, epidemiological, and genetic risk factors of AF were included using MeSH and DeCS terms, along with Boolean operators.

Results: Aging, hypertension, obesity, diabetes, sleep apnea, and alcohol and tobacco use emerged as key modifiable clinical risk factors. Genetically, over 140 loci—including PITX2 (4q25), KCNQ1, TTN, and SYNPO2L—have been associated with AF. Genome-wide association studies (GWAS) revealed that polygenic burden and rare variants in ion channel and sarcomeric genes may influence AF susceptibility, even in the absence of structural heart disease. Familial clustering and metabolomic links further underscore the complexity of its pathogenesis.

Conclusion: AF is a multifactorial disease resulting from the convergence of modifiable clinical risk factors and underlying genetic predisposition. Understanding these determinants enhances early risk stratification and supports the development of personalized preventive and therapeutic strategies in clinical cardiology.

Control Number: 25-CCC-428-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-06

06

Topic 1: Cardiac Arrhythmias

Publishing Title: STELLATE GANGLION BLOCK AND ICD IMPLANTATION IN ELECTRICAL STORM: A MULTIMODAL RESCUE STRATEGY

Author Block: Ian Montenegro, Jeniseth Atencio, Robbin Urieta, Juan De Dios Gonzalez, Gloria O'Neill, Armando Garrido, Jose Aguirre, Centro Nacional Especializado Cardiovascular y Toracico, Panama, Panama

Background: Ventricular tachycardia (VT) storm is a life-threatening condition requiring prompt stabilization and individualized management. **Case:** A 68-year-old male with hypertension and a family history of sudden death presented with progressive dyspnea and pulmonary edema due to hypertensive crisis. Initial ECG showed polymorphic VT (Fig A). Within 20 hours, he developed pulseless VT requiring 16 minutes of CPR, 200J cardioversion, amiodarone infusion, and 24 hours of mechanical ventilation.

A second VT episode occurred on Day 3, prompting referral. On arrival, he was stable. Echocardiogram revealed LVEF 26% with abnormal strain (Fig B,C), and coronary angiography showed no obstructive disease (Fig D), suggesting a non-ischemic etiology.

Decision-making: A temporary pacemaker was placed to optimize therapy. Due to recurrent VT storm (6 shocks in 48h), neuroautonomic modulation with a left stellate ganglion block was performed, achieving rhythm control. A dual-chamber ICD was implanted after stabilization (Fig E). The patient was discharged arrhythmia-free, pending genetic testing.

Conclusion: In patients with VT storm and no obstructive CAD, stellate ganglion block can help stabilize rhythm and serve as a bridge to definitive

ICD therapy.

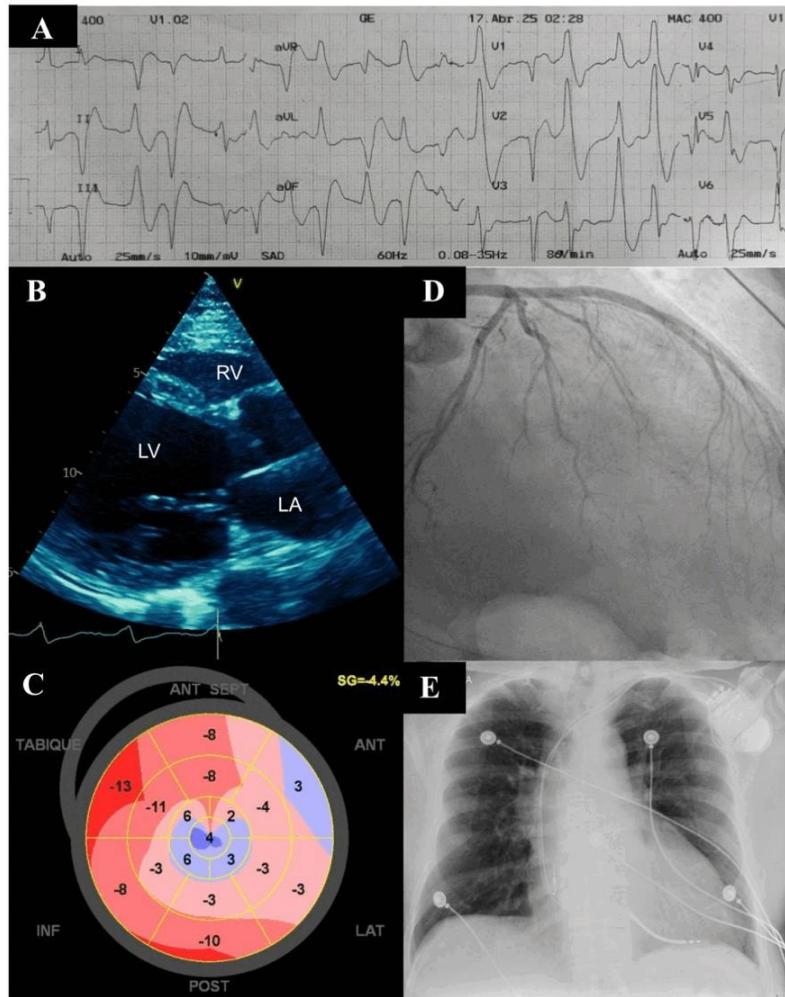


Figure 1 (A) ECG showing wide QRS polymorphic ventricular tachycardia.(B) Echocardiogram with biventricular dilation, wall motion abnormalities, and LVEF 26%. (C) Global longitudinal strain severely reduced (~4.4%), with septal and anterior involvement.(D) Coronary angiography without significant epicardial lesions.(E) Chest X-ray showing dual-chamber ICD in appropriate position.

Control Number: 25-A-489-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-07

07

Topic 1: Cardiovascular Disease Prevention

Publishing Title: PREVENTION OF SUDDEN CARDIAC DEATH IN MEXICAN ATHLETES OVER 30 THROUGH RISK FACTOR ASSESSMENT

Author Block: Joselyn Noriega, Maricruz G. Machuca, Jennifer S. Diaz Zepeda, Jorge J. Miguel González, Luisa F. Aguilera Mora, Adriana Gonzalez Martínez, Salvando Latidos A.C, Zapopan, Mexico

Background: Sudden cardiac death (SCD) in athletes may be mitigated through risk stratification via screening protocols. These strategies support early detection, improve prevention efforts, and help overcome deficiencies in sports infrastructure.

Methods:

This pilot phase of a prospective cross-sectional study was conducted from May to July 2023 during a cardiovascular screening campaign. Inclusion criteria: athletes ≥ 30 years, engaging in structured physical activity. Data collected included clinical interview and resting 12-lead ECG. Training volume was stratified into very low (<3,000 MET-min/week), low, moderate, high, and very high (>18,000).

Results: Among 100 athletes (49% female, 51% male; mean age: 44.9), training volume was very low (20%), low (33%), moderate (23%), high (24%), and very high (20%).

Clinical risk factors included lack of professional supervision (48%), dyspnea (26%), presyncope (13%), palpitations (13%), chest pain (6%), and smoking (12%). Most were veteran (>35 years, 90%) and amateur (59%).

ECG analysis: 81% had 1-5 abnormalities. High-risk ECG findings were

present in 10 participants; 31 had moderate-risk and 122 low-risk anomalies. Notable findings: P-wave inversion in DII (9), left anterior fascicular block (7), P-wave inversion in AVL (3), AVF (2), and low atrial rhythm (2).

Conclusion: A high prevalence of clinical and ECG risk markers for SCD was observed. These findings underscore the need for structured cardiovascular screening in aging athletes.

Table with ranking regarding the volume of Mets minutes/week and risk factors associated to sudden death in the athlete, represented in frequency

Variable	Characteristic	Very low volume (n=20)	Low volume (n=33)	Moderate volume (n=23)	High volume (n=10)	Very high volume (n=14)	N=100
Biological sex	Woman	14	13	13	3	6	49
	Man	6	20	10	7	8	51
Specialized training for running	No	17	15	9	3	4	48
	In teams	3	16	9	3	5	36
	Single	0	2	5	4	5	16
Smoking	Yes	1	4	3	3	1	12
	No	20	29	20	7	13	89
Periods of fatigue	Unexplainable excessive Severe associated with exercise	1	0	1	0	0	2
	Before exercise	3	3	5	1	6	18
Presyncope	Before	0	1	0	0	0	1
	During	0	2	2	0	1	5
	Later	2	1	6	2	2	13
Syncope	Before	0	0	0	0	0	0
	During	0	0	0	0	0	0
	Later	0	0	1	0	0	1
Palpitations	Before	1	0	0	0	0	1
	During	3	5	3	0	2	13
	Later	0	1	1	0	2	4
Chest pain	Before	0	0	0	0	0	0
	During	2	0	1	0	1	4
	Later	1	2	3	0	0	6
Dyspnea	Before	0	0	0	0	0	0
	During	6	10	5	2	3	26
	Later	0	1	0	0	1	2
Type of intensity	High	2	5	3	2	1	13
	High and low	3	1	1	0	1	6
	High and medium	3	11	10	7	8	39
	High, medium and low	0	0	2	1	2	5
	Medium	4	12	7	0	0	23
	Medium and low	0	2	0	0	2	4
	Low	6	2	0	0	0	8
Type of sport	Of skill	20	33	23	10	14	100
	Of power	4	8	15	6	8	41
	Mixed	0	4	3	2	2	11
Type of athlete	Amateur	20	26	8	5	0	59
	High performance	0	7	15	5	10	37
	Elite	0	0	0	0	4	4
	Veteran	19	31	21	9	10	90
Number of alteration in EKG	0	5	7	5	2	0	19
	1	6	10	5	1	5	27
	2	5	10	9	5	5	34
	3	4	3	3	1	3	14
	4	0	2	1	1	1	5
	5	0	1	0	0	0	1

Control Number: 25-A-528-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-08
08

Topic 1: Cardiovascular Disease Prevention

Publishing Title: UNDERESTIMATED RISK: MODERN SCORES AND NON-INVASIVE VASCULAR TOOLS DISCLOSE ELEVATED CARDIOVASCULAR RISK IN IDIOPATHIC INFLAMMATORY MYOPATHIES

Gabriela Garcia, Carlos Ramos-Becerra, Fernanda-Isadora Corona-Meraz, Marcelo H. Petri, Mario Salazar-Páramo, Maria G. Ramirez-Dueñas, Jose Becerra-Jimenez, Arahi Gaspar-Ruiz, Christian Juarez-Gomez, Alejandra-Rubí García-Gallardo, Itzel-Yoselin Arteaga-Gallegos, Judith-Alejandra Esparza-Michel, Ligia Magaña-García, Roberto-Carlos Rosales-Gomez, Alvaro-Jovanny Tovar-Cuevas, Luis-Jesús Márquez-Bejarano, David Cardona-Muller, Edgar-Federico Quirarte-Tovar, Arcelia Llamas-Garcia, Andrea Aguilar-Vazquez, Monica Vazquez-Del Mercado, Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Guadalajara, Mexico, División de Medicina Interna, Servicio de Reumatología, Hospital Civil Dr. Juan I. Menchaca, Guadalajara, Mexico

Background: Scarce data about cardiovascular (CV) risk in Idiopathic inflammatory myopathies (IIM) are not fully captured by traditional scores. This study aimed to evaluate CV risk in IIM patients using conventional risk calculators and non-invasive vascular tools.

Abstract Body: **Methods:** This cross-sectional study assessed CV risk in 19 IIM patients and 27 matched controls using Framingham, QRISK3, ASCVD, and Globorisk scores, along with non-traditional vascular tools: pulse wave velocity (PWV ≥ 10 m/s) and flow-mediated dilation (FMD $< 7\%$). Diagnosis followed EULAR/ACR, European Neuromuscular Centre, or Bohan and Peter criteria.

Statistical analyses included χ^2 /Fisher's exact, Spearman correlation, and multivariate regression.

Results: A significantly higher proportion of IIM patients were classified as high or moderate cardiovascular risk by QRISK3, ASCVD, and Globorisk compared to controls, while Framingham score did not show significant differences. These results are detailed in Table 1. FMD inversely correlated with ASCVD ($\rho=-0.733$, $p=0.025$). In multivariate analysis ($R^2=0.807$), ASCVD risk was independently predicted by FMD <7% ($B=-3.91$, $p=0.029$) and Myositis Damage Index (MDI) ($B=186.6$, $p=0.010$).

Conclusion: IIM patients show increased CV risk when assessed with modern scores and non-traditional vascular tools. Traditional models like Framingham may underestimate risk. FMD and MDI provide strong predictive value for ASCVD risk and reflect vascular damage not captured by standard scores.

Risk Score	Threshold	IIM Patients Above Threshold	Controls Above Threshold	χ^2 (df=1)	p-value	Fisher's Exact Test p
QRISK3	$\geq 10\%$	3/17 (17.6%)	0/27 (0%)	5.113	0.024	0.051
ASCVD	7.5%–20%	4/14 (28.5%)	0/21 (0%)	6.774	0.009	0.019
Globorisk	10%–20%	3/13 (23.1%)	0/21 (0%)	5.315	0.021	0.048
Framingham	10%–20%	1/19 (5.3%)	0/27 (0%)	1.453	0.228	0.413

Control Number: 25-CCC-558-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-09

09

Topic 1: Cardiovascular Disease Prevention

Publishing Title: ADRENAL ADENOMA IN THE CONTEXT OF PRIMARY ALDOSTERONISM - A CASE OF RESISTANT HYPERTENSION

Marco Antonio Alonso Lima, Hector Hugo Escutia-Cuevas, Ivonne Hernández Montiel, Erick Alberto Canché Bacab, César Jesús Muñoz Hernández, José Joel Parada Jiménez, Jorge Francisco Herrera Viveros, Emilio Medina Ceballos, Hospital Puebla, Department of Cardiology, Puebla, Mexico, Hospital Angeles Puebla, Department of Internal Medicine, Puebla, Mexico

Background: Primary aldosteronism (PA) is a commonly overlooked secondary form of hypertension associated with increased cardiovascular risk and is curable in many cases.

Case: A 44-year-old man with a history of myopericarditis and 8-years of hypertension, treated with amlodipine, valsartan and hydrochlorothiazide, with difficult control. He was admitted to the emergency room with headache, tinnitus and dizziness. Vitals: BP 190/110 mmHg, HR 95 bpm, RR 18 bpm. Physical exam: mid-diastolic aortic murmur II/VI and edema (+/++). Immediate management for hypertensive crisis was provided with improvement during the first 24 hours. Laboratory tests showed severe hypokalemia (potassium 1.9 mEq/l) and metabolic alkalosis (pH 7.49, pCO₂ 35 mmHg, HCO₃ 27.5 mmol/l), which, in the context of the patient's history, prompted evaluation for secondary hypertension. Further workup showed a plasma aldosterone concentration (PAC) of 8.26 ng/dl, plasma renin activity (PRA) of 0.14 ng/ml/h, and a PAC/PRA ratio of 59 ng/dl, suggestive of PA. Magnetic resonance imaging and computed tomography

Abstract Body: RR 18 bpm. Physical exam: mid-diastolic aortic murmur II/VI and edema (+/++). Immediate management for hypertensive crisis was provided with improvement during the first 24 hours. Laboratory tests showed severe hypokalemia (potassium 1.9 mEq/l) and metabolic alkalosis (pH 7.49, pCO₂ 35 mmHg, HCO₃ 27.5 mmol/l), which, in the context of the patient's history, prompted evaluation for secondary hypertension. Further workup showed a plasma aldosterone concentration (PAC) of 8.26 ng/dl, plasma renin activity (PRA) of 0.14 ng/ml/h, and a PAC/PRA ratio of 59 ng/dl, suggestive of PA. Magnetic resonance imaging and computed tomography

identified a nodular lesion arising from the medial limb of the left adrenal gland, consistent with an adenoma. A laparoscopic left adrenalectomy was performed, revealing an adrenal gland with a 1.6 x 1.2 x 1.2 cm nodule located in the medial limb and 5 adrenal veins. Pathology reported a left adrenal cortical adenoma with lipomatous changes and areas composed of 85% clear cells, Weiss score 1.

Decision-making: PA is one of the leading causes of resistant hypertension and remains underdiagnosed. The presence of hypokalemia is a suggestive sign, found in 30-40% of cases. Additionally, it may be associated with metabolic alkalosis. The diagnostic evaluation involves a multi-step process including screening, confirmatory testing and subtype differentiation to guide management.

Conclusion: We report a case of PA due to an aldosterone-producing adrenal adenoma, with complete clinical success following surgery, evidenced by a significant reduction in the need for antihypertensive medications. Timely diagnosis and targeted treatment strategies can reduce organ damage and prevent adverse cardiovascular events.

Control Number: 25-A-579-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-10

10

Topic 1: Cardiovascular Disease Prevention

Publishing Title: THE END OF THE DAPT ERA? P2Y12 INHIBITOR MONOTHERAPY EMERGES AS SAFER, EQUALLY EFFECTIVE ALTERNATIVE IN 52,475 PCI PATIENTS — A COMPREHENSIVE META-ANALYSIS

Author Block: Sandra Lizeth Rodriguez Rodriguez, Arath Josué Campos Muñoz, Adolfo Calderón-Fernández, Luis Enrique Cueva Cañola, SR, Andrea Palacios Navas, Mario Cesar Torres Chavez, Daniel Paulino González, Jimmy Cristhian Ccallalli Ruiz, Elva Alejandra Manjarrez Granados, Universidad Cuauhtémoc, Aguascalientes, Mexico

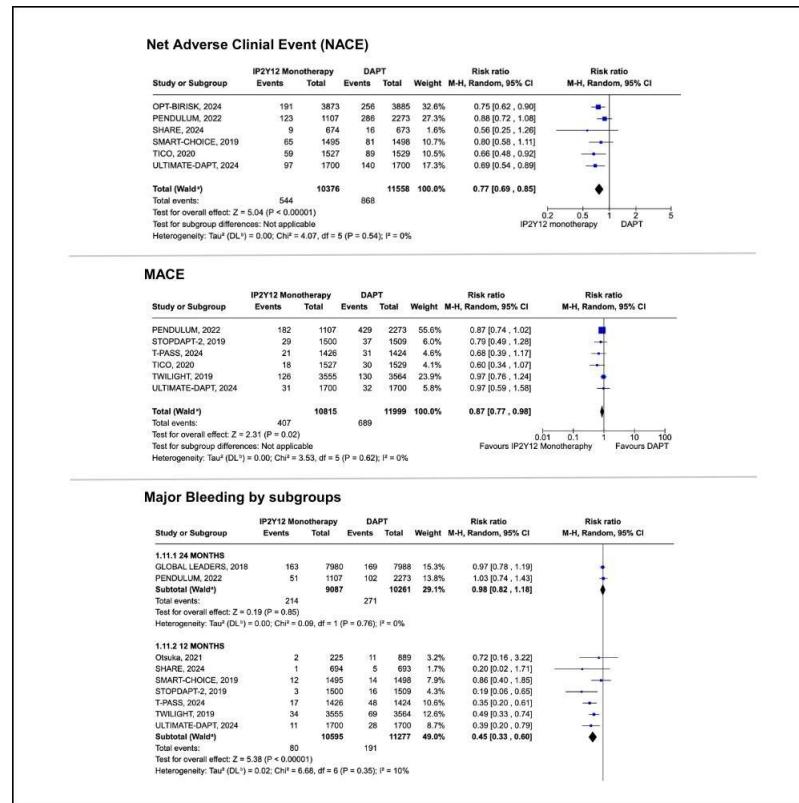
Background: Current guidelines recommend 12 months of DAPT after PCI in ACS patients; however, prolonged use is associated with increased bleeding risk. Emerging strategies propose shortened DAPT followed by P2Y12 inhibitor (P2Y12i) monotherapy as a safer alternative without loss of efficacy.

Methods: We conducted a comprehensive systematic review of PubMed, Embase, Scopus, and Web of Science up to March 12, 2025. We included RCTs and cohort studies comparing short DAPT (≤ 3 months) followed by P2Y12i monotherapy versus standard DAPT (≥ 12 months) in ACS patients undergoing PCI. Primary outcomes were NACE, Net Clinical Benefit events, MACCE, cardiovascular death, myocardial infarction (MI), and major bleeding at 12 months. Risk ratios (RR) with 95% confidence intervals (CI) were calculated using a random-effects model.

Results: Thirteen studies involving 52,475 patients were included. P2Y12i monotherapy significantly reduced NACE (RR=0.77; 95% CI [0.69-0.85]; $p<0.00001$), Net Clinical Benefit events (RR=0.58; 95% CI [0.43-0.79];

$p=0.0002$), MACCE (RR=0.85; 95% CI [0.73-0.98]; $p=0.03$), and major bleeding (RR=0.48; 95% CI [0.36-0.64]; $p<0.00001$). No significant differences were observed in cardiovascular death (RR=0.81; 95% CI [0.61-1.08]; $p=0.14$) or MI (RR=0.97; 95% CI [0.79-1.19]; $p=0.71$).

Conclusion: In ACS patients post-PCI, P2Y12i monotherapy after short DAPT significantly reduces adverse clinical events and bleeding, with comparable ischemic protection to standard DAPT.



Control Number: 25-A-582-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-11

11

Topic 1: Cardiovascular Disease Prevention

Publishing Title: COMPARATIVE EVALUATION OF PREDICTIVE PERFORMANCE BETWEEN STS, EUROSORE II, AND THE ARTIFICIAL INTELLIGENCE MODEL RISCARD-IA QX IN CARDIOVASCULAR SURGERY

Author Block: jaime monroy, Marco Antonio Hernandez, Centro medico ISSEMYM "Lic. Arturo Montiel Rojas", Metepec, Mexico

Background: Accurate perioperative risk assessment in cardiovascular surgery is essential to reduce complications and optimize care. Traditional models like STS and EuroSCORE II, developed in European/North American populations, may underperform in complex Latin American settings.

RISCARD-IA Qx is a multimodal AI model integrating multiple variables in a single predictive environment. It applies a transformer-based architecture to enable personalized risk estimation, combining machine learning for outcome prediction, Monte Carlo simulation for uncertainty and

SHAP/LIME for explainability.

Methods: This retrospective study included 70 adults undergoing cardiovascular surgery (2018-2024), powered to detect a 0.14 AUC difference (90% power, alpha 0.05). RISCARD-IA was compared with STS and EuroSCORE II for mortality, renal/cardiac complications, infections, bleeding, ventilation >24h, and length of stay. AUCs, Brier scores, NRI/IDI, and decision curve analysis were used. Internal validation used 2,000 bootstraps, and 5-fold cross-validation (no retraining) confirmed stability (AUC=0.697 ± 0.094; Brier=0.177 ± 0.004). External validation is pending.

Results: RISCARD-IA outperformed both scores in mortality (AUC=0.725), renal replacement (0.919), and mechanical support (0.739). Calibration

was superior (Brier=0.120; slope=2.35; intercept=0.024), with greater net benefit across 5-15% thresholds. It showed high accuracy in predicting cardiogenic shock (AUC=0.742) and need for mechanical support (AUC=0.739), with high specificity and NPV of 91.8% at a threshold of 11.8%. For prolonged stay (>14 days), AUC was 0.701. Lower performance in infections and bleeding (AUC<0.58) likely reflects event rarity and limited signal.

Conclusion: The model introduces a novel method for clinical risk estimation using multimodal AI. Validated as a locally adapted pilot, RISCARD-IA Qx outperformed STS and EuroSCORE II in key outcomes, improving discrimination, calibration, and clinical utility. It supports secondary and tertiary prevention and may be scalable to other complex settings. It may assist clinicians in shared decision-making and perioperative resource use.

Control Number: 25-A-469-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-12

12

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: ELECTROCARDIOGRAPHIC AND STRUCTURAL REVERSION IN APICAL HYPERTROPHIC CARDIOMYOPATHY: A RARE CASE OF YAMAGUCHI SYNDROME IN MEXICO

Author Sayeli Elisa Martínez Topete, Adolfo Calderón-Fernández, Gael A. Rodriguez Terrazas, Mariana Lizbeth Moreno Maldonado, Seni Ocampo-Calderón, Miguel A. Salinas Aragon, Cardiovascular Institute od Mexicali, Mexicali, Mexico, Autonomus University of Baja California, Tijuana, Mexico

Block:

Background: Apical hypertrophic cardiomyopathy (ApHCM), also known as Yamaguchi syndrome, is a rare variant of hypertrophic cardiomyopathy, most prevalent in East Asian populations. It is particularly uncommon in Hispanic populations, leading to underrecognition and misdiagnosis.

Methods: We report two cases of Hispanic women with a history of hypertension presenting an ECG with deep T-wave inversions in precordial leads and elevated Sokolow-Lyon index. Transthoracic echocardiograms revealed apical hypertrophy (max thickness 24-25 mm) with the characteristic “ace-of-spades” configuration.

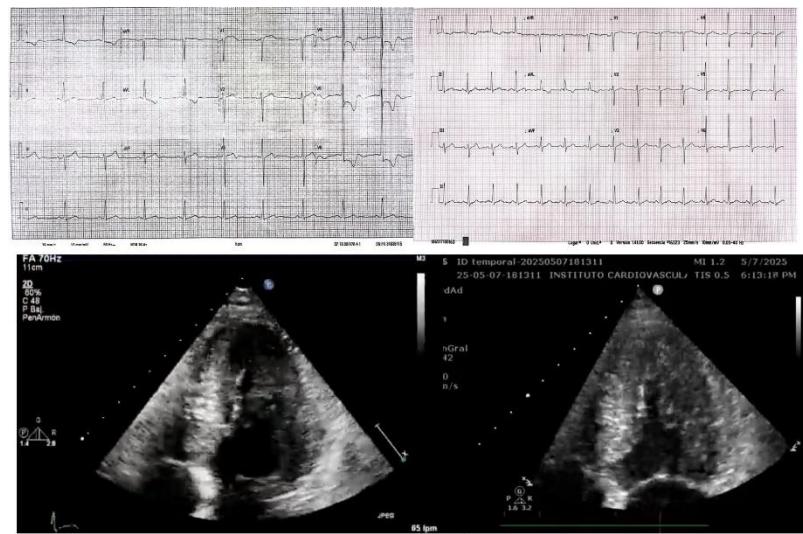
Results: Both patients were managed conservatively with antihypertensives and beta-blockers. Clinical improvement was accompanied by partial ECG normalization and a mild reduction in apical thickness on follow-up imaging. An uncommon finding rarely reported in the literature.

Conclusion: These cases highlight the importance of considering ApHCM in Hispanic patients with atypical symptoms. Reversibility of structural and electrical features under medical therapy challenges the current paradigm

Abstract

Body:

and warrants further investigation.



Control Number: 25-CCC-470-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-13

13

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: DUAL TREATMENT WITH ALCOHOL SEPTAL ABLATION AND RADIOFREQUENCY AS AN ALTERNATIVE TO MYECTOMY IN OBSTRUCTIVE HYPERTROPHIC CARDIOMYOPATHY DUE TO MYH7 MUTATION

Author Block: KEVIN ACEVEDO, Rodrigo A. Bonilla, Freddy J. Medina, Karen A. Garro, National Medical Center November 20th, Mexico City, Mexico

Background: There is limited evidence regarding the combination of alcohol septal ablation (ASA) and radiofrequency ablation (RFA) as a successful dual therapy in HOCM.

Case: A 63-year-old female patient with no previous pathological history and a positive family history of HOCM is presented. She began experiencing exertional dyspnea and initially underwent ASA which resulted in slight clinical improvement. Functional deterioration recurred during moderate exertion. A post-ASA echocardiogram demonstrated asymmetrical septal

Abstract Body: Hypertrophic obstructive cardiomyopathy (HOCM) with left ventricular outflow tract obstruction (LVOTO), showing a maximum gradient 87 mmHg and a mean gradient 40 mmHg, maximum velocity 4.64 m/s, left ventricular mass index 135 g/m² and longitudinal strain -15%, along with a moderate systolic anterior motion phenomenon causing severe MR. RFA was performed and reported as successful, with a reduction of the LVOT gradient to <50mmHg at rest and remission of exertional symptoms. The genetic study revealed a pathogenic variant in the MYH7 gene.

Decision-making: Known as autosomal dominant, 25 mutations have been described in the genes encoding the myosin heavy chain, C-protein, and troponin T. The MYBPC3 and MYH7 genes account >50% of the pathogenic

mutations. Causing cardiomyocyte hypertrophy, increased fibroblasts and excessive collagen production, leading to fibrosis and disarray of the sarcomeres. This hypertrophy may or may not result in LVOTO, diastolic dysfunction and dynamic alterations in the systolic motion of the mitral valve. An LVOTO gradient is considered >50 mmHg at rest, associated with an increased risk of sudden death.

Conclusion: Regarding current interventional therapies, ASA has disadvantages such as reliance on coronary anatomy, the induction of greater myocardial injury, and an elevated risk of conduction blocks as well as scar-induced arrhythmias. RFA produces a smaller lesion and carries fewer risks, but it is usually less effective in reducing the obstructive gradient, with a lower success rate. However, there is little evidence regarding dual therapy between the two strategies. Good results can be obtained with their combination.

Control Number: 25-A-474-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-14

14

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FREQUENCY AND PREDICTORS OF RECOVERED LVEF IN PATIENTS WITH HEART FAILURE AND PREVIOUSLY REDUCED LVEF

Author Block: Jairo I. Alejo, Kassandra Rios, Gibran Reynoso, Miguel Sandoval, Eileen Amaro, Antonio Tepayotl, Adolfo Chavez, Jose Cigarroa, Jose A. Magaña, Genaro H. Mendoza, Juan B. Ivey, UMAE Hospital de Cardiología. Centro Médico Nacional Siglo XXI, Mexico City, Mexico

Background: For years, there was no standardized definition of heart failure with LVEF recovery; however, it is now recognized as a special phenotype with a favorable prognosis. Despite this, its prevalence in our setting and the variables with which it is associated are unknown.

Methods: Observational and retrospective study. We reviewed the electronic records of patients treated in the heart failure clinic of our center who had at least 2 echocardiograms during follow-up at our center.

Recovered LVEF was defined as an increase of at least 10 points and reaching an LVEF >40%.

Abstract Body: **Results:** A total of 406 patients were included (age 58±13 years; 70% men; diabetes 43%; hypertension 40%; ischemic etiology 56%, LVEF 27±8%). The percentage of patients with recovered LVEF was 18% (95% CI 15-22%). In the multivariate analysis, 2 variables were identified that independently increased the probability of recovered LVEF: female sex with an OR of 2.6 (95% CI 1.50-4.49, p<0.001); and non-ischemic etiology with an OR of 2.1 (95% CI 1.20-3.63, p=0.009). One variable that decreased the probability of having recovered LVEF was the use of an ICD without a resynchronizer with an OR of 0.27 (95% CI 0.10-0.72, p=0.009).

Conclusion: In a cohort of patients with heart failure and reduced LVEF, the percentage of recovered LVEF was 18%. Patients with non ischemic heart failure and female gender were more likely to have recovered LVEF.

Control Number: 25-CCC-476-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-15
15

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: GLOVE FINGER TYPE ANEURYSM IN CHAGAS DISEASE AS A LATE DIAGNOSTIC SOURCE OF THROMBOEMBOLISM.

Author Block: Jessica Mirella Mercedes, Manuel Ayala, Jackelyne Raquel Avelar, Hospital Nacional Rosales, San Salvador, El Salvador

Background: Chagas Disease (CD) is endemic in Latin America; in El Salvador, 3% of blood donors tested seropositive in 2023. CD can cause apical aneurysms, seen in 8.5% of asymptomatic patients and up to 50% in advanced cardiomyopathy. These aneurysms vary in shape and may be missed on transthoracic echocardiography (TTE) due to apical foreshortening. Cardiovascular magnetic resonance (CMR) provides better visualization and tissue characterization.

Abstract Body: A 54-year-old woman with hypertension, internal carotid artery thrombosis, and ischemic stroke presented with palpitations. Two prior TTEs were normal. Electrocardiogram (ECG) showed sinus rhythm, low voltage in inferior limb leads, and T-wave inversion in V1-V5 and aVL. A new TTE showed non-dilated chambers, preserved left ventricular ejection fraction (LVEF), and poor apex visualization.x visualization.

Decision-making: BaseCMR revealed a small apical aneurysm, LVEF of 60%, hyperintensity in T2 short tau inversion recovery (T2-STIR) sequences indicating blood stasis, and transmural late gadolinium enhancement in the apex and lateral walls. CD serology was positive.

Conclusion: Cardioembolism is a major stroke mechanism in CD and may be the first sign. In endemic areas, abnormal ECG with stroke history should

prompt CMR for diagnosis and prevention.

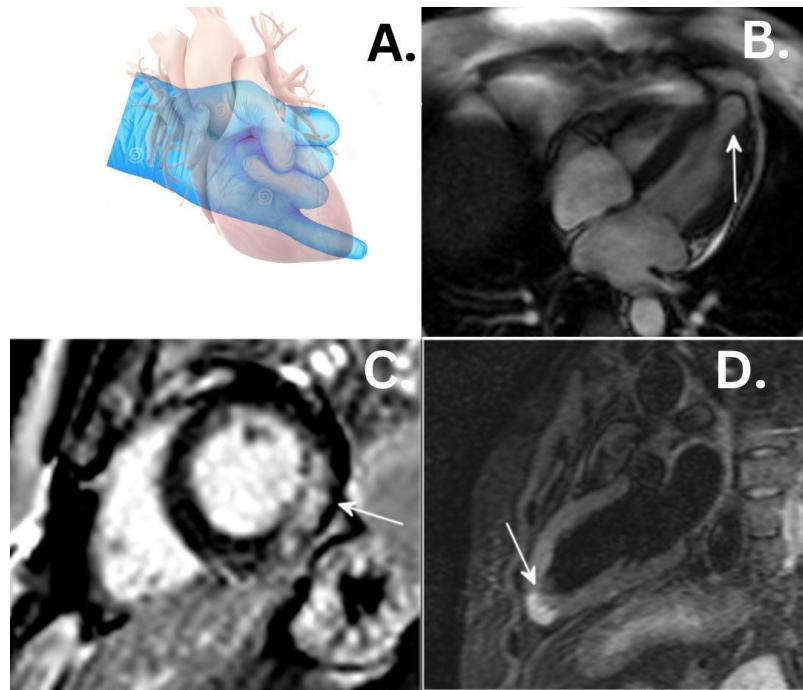


FIGURE 2: **A.** Graphic representation of a “gloved shape” aneurysm. **B.** SSFP (Steady state free precision 4CH view (CMR) shows the “gloved shape aneurysm in the apex. **C.** Short axis view showing inferolateral LGE (Late gadolinium enhancement). **D.** T2STIR image with increase of signal intensive in the apex secondary to blood extasis.

Control Number: 25-CCC-480-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-16

16

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: AN UNUSUAL CASE OF GENETIC DILATED CARDIOMYOPATHY UNMASKED BY COVID-19 INFECTION

Greeshma Molugu, Venkat Gaddam, Chaitra Molugu, S.M. Mehdi Khalafi,

Author Block: Amir Z. Malik, Daniel McMahan, Medical City Fort Worth, Fort Worth, TX, USA

Background: Titin (TTN) mutations are a well-known cause of dilated cardiomyopathy (DCM), occurring in 25% of familial cases of idiopathic DCM and 18% of sporadic cases. Recognition and referral for genetic testing remains underutilized but has important prognostication and helps the patient better understand the disease transmission. This case report stresses the importance of a complete evaluation for genetic causes of DCM.

Case: A 21-year-old male who was adopted as an infant was hospitalized with COVID-19 infection and diagnosed with non-ischemic cardiomyopathy with an initial EF of 10%. He was assumed to have DCM secondary to his viral infection and was discharged on guideline-directed medical therapy (GDMT) without any further workup. However, he was lost to follow-up, and two years later, he presented in cardiogenic shock leading to pulseless electrical activity (PEA) arrest. His EF then was 5-10% with global hypokinesis, dilation of all four chambers, and severely reduced RV function. He was placed on VA ECMO with an Impella 5.5.

Decision-making: Cardiac MRI showed four chamber cardiomegaly without contrast uptake, no evidence of arrhythmogenic RV dysplasia, no focal wall motion abnormality, and no late gadolinium enhancement.

Genetic testing was positive for an autosomal dominant heterozygous TTN mutation. The patient was decannulated and discharged on GDMT and a LifeVest. His EF at the three-month follow-up improved to 50-55%.

Conclusion: Genetic DCM is often underdiagnosed due to false assumptions or incomplete workup. Our patient went years without a complete workup. Also, our patient was adopted, but studies have shown the importance of screening family members for early identification of familial DCM. Gene-environment interactions play a vital role in the development of DCM. Studies have shown that TTN mutations can predispose individuals to specific types of cardiomyopathy when combined with environmental factors. This was likely seen in our patient, as both presentations occurred after COVID-19 infection. Hence, a complete workup at the time of diagnosis will aid in patient education of the disease, familial transmission rates, and importance of compliance and follow-up.

Control Number: 25-CCC-482-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-17

17

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CYTOMEGALOVIRUS-ASSOCIATED PERICARDITIS AND CARDIAC TAMPONADE IN THE LATE PHASE OF ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION

Author Block: Abraham Zenteno-Aguilar, Sophia Santana-Tierrafría, Departamento de Medicina y Nutrición. Universidad de Guanajuato, León, Guanajuato, Mexico, Departamento de Ciencias Médicas. Universidad de Guanajuato, León, Guanajuato, Mexico

Background: Allogeneic hematopoietic stem cell transplantation (allo-HSCT) increases susceptibility to opportunistic infections. Cytomegalovirus (CMV) reactivation can occur in the early post-engraftment period in up to 70-80% of cases. Its typical clinical manifestations in this population include enterocolitis, pneumonia, and encephalitis, while disseminated disease involving the pericardium is rare.

Case: A 29-year-old female with primary myelofibrosis underwent allo-HSCT under prophylaxis with levofloxacin, valganciclovir, posaconazole, trimethoprim/sulfamethoxazole, and isoniazid. The patient developed graft-versus-host disease (GVHD) requiring immunosuppressive therapy. During the first post-transplant year, she had multiple infections, including asymptomatic CMV reactivation, *Pneumocystis jirovecii* pneumonia, a perianal abscess, *Cladosporium* pneumonia, and herpes simplex virus encephalitis. At month +14 post-HSCT, she was admitted with shock, fever, lymphocytosis, and liver dysfunction. Initially managed as septic shock, she deteriorated into heart failure. A CT and then confirmed by electrocardiogram and echocardiogram, revealed a massive pericardial

effusion with right-sided cardiac compression. Urgent pericardiocentesis yielded 1,075 mL of inflammatory fluid. CMV PCR showed 323,712 copies/mL in pericardial fluid and 797 copies/mL in blood, confirming disseminated CMV disease.

Decision-making: The patient required coronary intensive care and a second pericardiocentesis. Induction therapy with ganciclovir followed by valganciclovir for 3 months led to clinical and virological resolution. Currently, at 35 months post-transplant, the patient remains asymptomatic with a negative CMV viral load, stable immunologic control and stable GVHD.

Conclusion: This case illustrates the importance of suspecting uncommon manifestations of CMV in immunocompromised hosts. CMV pericarditis and tamponade are rare complications post-allo-HSCT. Early recognition and antiviral therapy can lead to favorable outcomes even in severe presentations.

Control Number: 25-A-490-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-18

18

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: MAVACAMTEN IN HYPERTROPHIC CARDIOMYOPATHY: CLINICAL EVIDENCE, PATIENT SELECTION, AND OUTCOMES.

Alvaro Taveras, Samuel De Jesus Vasquez, Hospital Metropolitano de

Author Block: Santiago (HOMS), Santiago, Dominican Republic, UConn Health, Farmington, CT, CT, USA

Background: Hypertrophic cardiomyopathy (HCM) is the most prevalent inherited cardiomyopathy, with obstructive forms often requiring septal reduction therapy. Traditional pharmacologic strategies have targeted symptoms without addressing the underlying sarcomeric dysfunction. Mavacamten, a selective cardiac myosin inhibitor, offers a novel mechanism aimed at reducing hypercontractility by stabilizing the super-relaxed state of β -cardiac myosin.

Methods: A structured literature review was conducted using 40 peer-reviewed sources including EXPLORER-HCM, VALOR-HCM, MAVERICK-HCM, and ODYSSEY-HCM trials, cardiac MRI substudies, biomarker analyses, and long-term extension cohorts. Clinical endpoints included changes in LVOT gradient, NYHA class, peak VO_2 , NT-proBNP, and LVEF.

Results: Mavacamten significantly reduced post-exercise LVOT gradients (-36 mmHg , $p < 0.0001$), improved NYHA class (65% vs 31% placebo), and increased peak VO_2 . CMR studies demonstrated reductions in LV mass index (-17.4 g/m^2 , $p < 0.0001$) and left atrial volume. NT-proBNP and hs-Troponin I levels decreased consistently across studies. Long-term data up to 84 weeks showed sustained improvements, with transient LVEF reductions (<50%) occurring in <6% of patients and resolving with dose

Abstract Body:

adjustment.

Conclusion: Mavacamten is a clinically transformative agent in the management of HCM, offering symptomatic relief, reverse structural remodeling, and a favorable safety profile. Its integration into treatment paradigms—particularly as an alternative to invasive septal reduction—is supported by robust evidence. These findings may have particular relevance in Latin American settings, where access to invasive therapies remains limited. Future studies may expand its role in nonobstructive and genotype-positive HCM.

Control Number: 25-CCC-492-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-19

19

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: A CASE OF DESMOPLAKIN CARDIOMYOPATHY PRESENTING AS MULTIPLE CHEST PAIN EPISODES

Author Block: Medina Avalos Gustavo Adrian, Gerardo Morales Trujillo, Rodrigo Bernal Morales, Marco Rios, Joshua Alejandro Gonzalez Gomez, Demian Casanova Campos, Omar Sáenz, Marco Pena, Ricardo Verdugo, Universidad Autónoma de Baja California, Tijuana, Mexico, Instituto Mexicano del Seguro Social, Mexico

Background: Mutations in desmoplakin (DSP) cause a unique form of cardiomyopathy with a high prevalence of left ventricular (LV) and myocardial inflammatory episodes.

Case: A 23 year old Hispanic woman presented in february 2020 with chest pain, palpitations, and dyspnea, precipitated by ambulation. Labs showed troponin I level of 0.29 ng/mL. She reported a family history of myocardial infarction. The ECG showed sustained monomorphic ventricular tachycardia (MVT), requiring pharmacologic cardioversion.

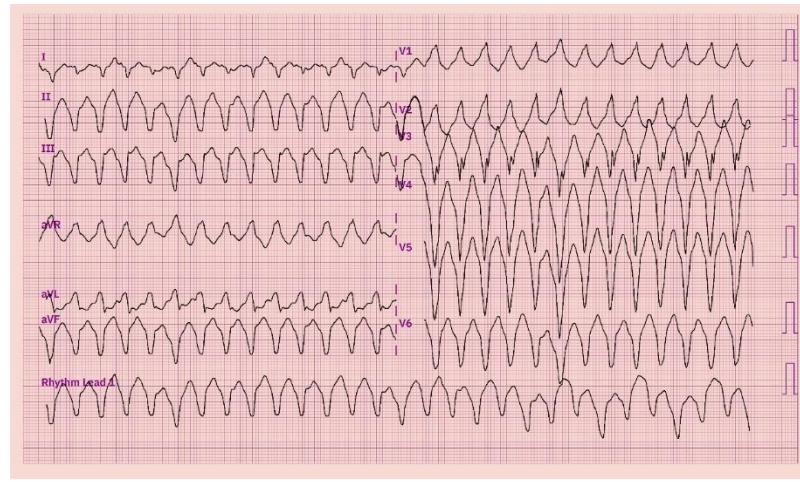
Abstract Body: A second episoded occurred when the patient was pregnant in July 2021. Troponin I peaking at 0.33 ng/mL. Pharmacologic cardioversion was performed. TTE showed a LVEF of 65%. Holter monitor revealed five runs of MVT.

A third episoded occurred during the puerperium with haemodynamic compromise, troponin I peak was 0.033 ng/mL, and ECG showed MVT, requiring electrical cardioversion.

Decision-making: Clinical course was complicated by monomorphic VT

with normal LVEF, which, in combination with elevated troponin, raised concern for cardiac involvement. MRI could not be performed, coronary angiography was normal. Genetic testing showed mutation in the DSP protein, heterozygous. Subcutaneous ICD was inserted for secondary prevention of SCD.

Conclusion: The clinical presentation of DSP cardiomyopathy is not distinguishable from other cardiomyopathies. Prompt diagnosis is essential and requires a multidisciplinary team including cardiologists, geneticists, and radiologists.



Control Number: 25-A-498-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-20
20

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: REVERSE VENTRICULAR REMODELING AFTER CARDIAC REHABILITATION IN PATIENTS WITH REDUCED LV FUNCTION

Author Gamaliel Alejandro Velasquez, SR, Rodrigo Antonio Bonilla, Yancy Y. Erazo Dorado, Fernando Dupond, Jorge Lara, Ana Lucia Calderón Ávila, Edil Rosalio Argueta Machado, Julieta Danira Morales, JR, Enrique Gomez, José L. Aceves Chimal, ISSSTE C.M.N. 20 de Noviembre, Ciudad de México, Mexico

Background: Cardiac rehabilitation (CR) is an established intervention for improving exercise tolerance and functional class in patients with chronic heart failure (CHF), yet its impact on echocardiographic indices of reverse ventricular remodeling remains insufficiently defined.

Methods: Prospective cohort study, 69 CHF patients (mean age 61 ± 14 years; 78.3% male) with reduced left ventricular (LV) function due to ischemic (94.2%), completed a standardized CR program. Transthoracic echocardiography was performed immediately pre- and post-rehabilitation. Key variables included LV end-diastolic diameter (LVEDD), indexed myocardial mass (IMVi) and ventricular geometry.

Results: Following CR, LVEDD decreased significantly from 55.77 ± 10.58 mm to 52.62 ± 9.10 mm ($p = 0.012$), and IMVi fell from 111 g/m^2 to 100 g/m^2 ($p = 0.004$). Ventricular geometry remained unchanged in 57.1% of patients; concentric and eccentric remodeling were each observed in 19%. Among the 24 patients with baseline eccentric hypertrophy, only 29.2% ($n = 7$) transitioned to normal geometry.

Conclusion: CR not only improves functional class in CHF patients with

Abstract Body:

reduced LV function but also induces significant reverse remodeling—as demonstrated by reductions in LVEDD and IMVi. However, complete normalization of ventricular geometry occurs in fewer than one-third of affected individuals, suggesting that additional therapeutic strategies may be needed to achieve more comprehensive structural recovery.

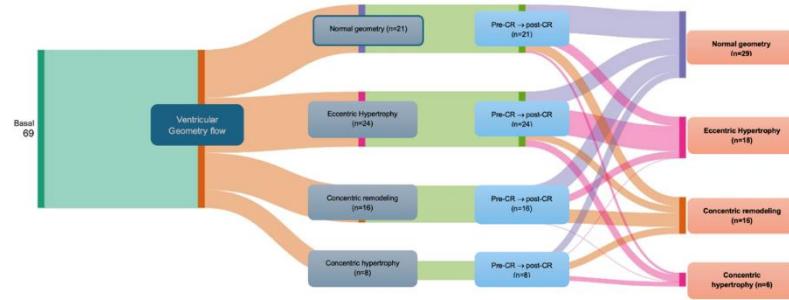


Figure 1. Sankey diagram showing cardiac remodeling changes in HF patients pre- vs. post-CR. Weak concordance ($k = 0.232$, $p = 0.001$) highlights significant shifts toward normal geometry during CR.

Control Number: 25-CCC-500-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-21
21

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: THE SILENT INVADER LATE LATENT SYPHILIS REVEALED BY A DEVASTATED ENDOCARDITIS

Author Block: Pamela Ramirez Rangel, JR, Ana Castillo Choy, Felix Ricardo Bonilla Bonilla, Luis Roberto Garcia-Tapia, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico

Background: Tertiary syphilis causes cardiovascular complications through *Treponema pallidum* invasion of aortic vasa vasorum, leading to arteritis, medial necrosis, and aneurysms (1-3). Despite being rare, its incidence is rising globally (16.7/100,000 in UK, 2023) (4-5).

Case: A 38-year-old man presented fever, weight loss (30 pounds in 6 months), dyspnea and hearing loss. Examination revealed hypotension (90/60 mmHg), tachycardia, and aortic regurgitation murmur.

Abstract Body: Echocardiogram demonstrated aortic valve vegetation with peri-annular abscess and severe regurgitation. CT demonstrated multiple thrombotic events and splenic abscess (**Figure 1**). Blood cultures grew *Staphylococcus epidermidis*. Despite lacking traditional risk factors, syphilis serology was positive (late latent). Treatment included valve replacement, vancomycin, and penicillin, with full recovery at 8-month follow-up.

Decision-making: The case allows to associate the injury on the aorta and aortic valve, to the infection by *T. pallidum*, causing dilatation of the root and aortic insufficiency condition that could favor the implant for *S. epidermidis*.

Conclusion: This case illustrates how late latent syphilis can serve as a silent architect of devastating cardiovascular complications, unmasking

itself through infective endocarditis, a rare association in the post-antibiotic era. The absence of classic risk factors for endocarditis underscores the importance of considering syphilis in atypical presentations.

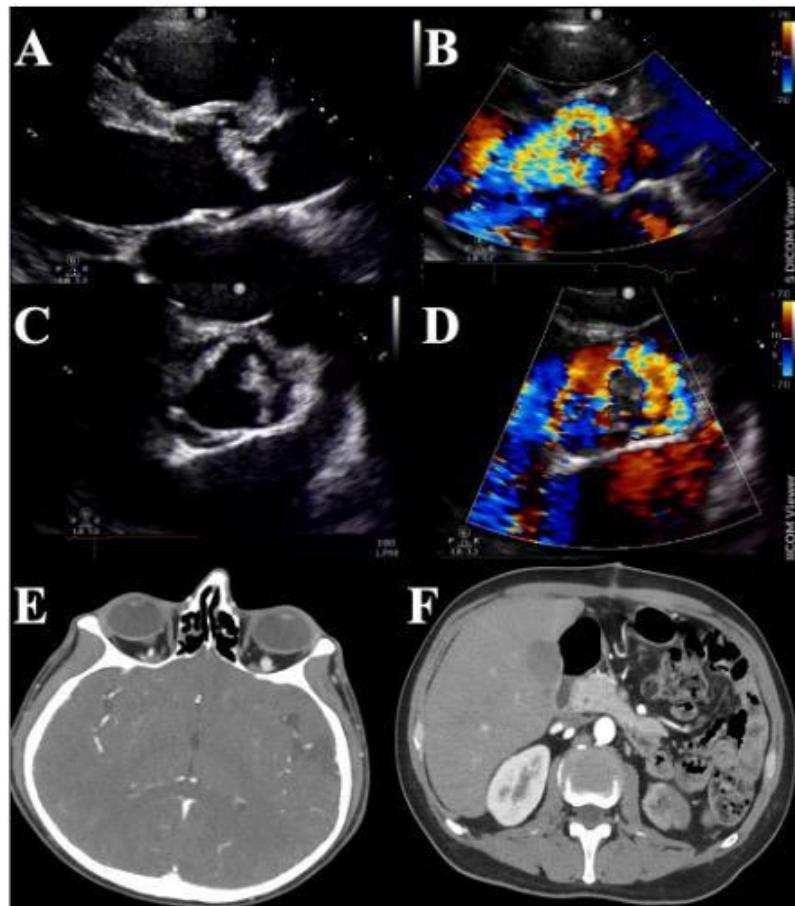


Figure 1. **A)** Transthoracic echocardiogram parasternal view that shows an oscillating mass in ventricular face of the aortic valve. **B)** Color Doppler in parasternal view, showing severe aortic regurgitation. **C)** Transthoracic echocardiogram parasternal short axis view reveals a mass on the right and left leaflets of the aortic valve, as well as the presence of aortic annular abscess. **D)** Color Doppler shows aortic insufficiency and annular abscess. **E)** Brain CT scan axial view. Cortical hypodensity at the left temporal-occipital pole. **F)** Abdominal CT scan axial view. Evidence of left renal infarction in the middle third towards the lateral surface, thrombosis of left renal artery, splenic abscess and partial thrombosis of celiac trunk and splenic artery.

Control Number: 25-CCC-519-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-22

22

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: RHABDOMYOLYSIS IN A HEART TRANSPLANT RECIPIENT: AN INTERACTION BETWEEN IMMUNOSUPPRESSIVE AND LIPID MANAGEMENT

Author Francisco Villadiego, LAURA MENDOZA, Efrain Gomez, Silvia Martinez,
Block: Claudia Poveda, Claudia Jaramillo, Luis Nates, Christian Acosta, Karen Morales, Fernan Mendoza, Fundación Clínica Shaio, Bogotá, Colombia,
Universidad El Bosque, Bogotá, Colombia

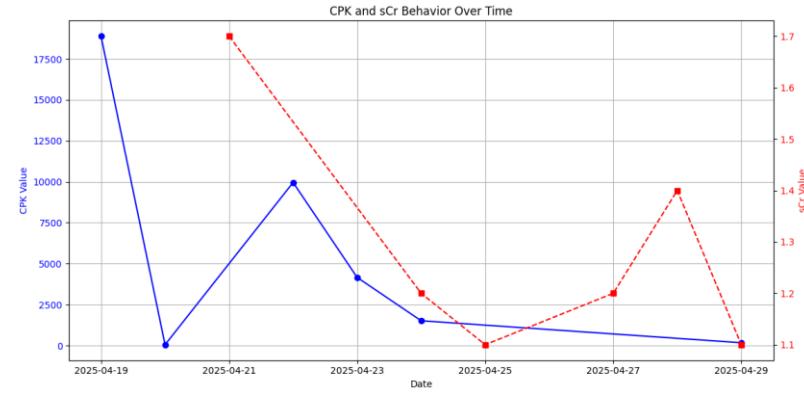
Background: Heart transplant recipients with graft vasculopathy require statins. Cyclosporine alters statin metabolism, increasing the risk of myopathy. Rapid recognition of neuromuscular symptoms is essential for timely treatment.

Case: A 52-year-old woman, heart transplant recipient (2000) with graft vasculopathy, presented with fatigue, myalgia, and proximal weakness. Cranial nerves were intact. Strength: upper extremities 4/5, lower extremities 2/5, foot drop; reflexes were normal. Sensory and coordination exams were preserved. She was on cyclosporine due to everolimus-associated hypocalcemia; tacrolimus had been avoided due to chronic kidney disease. She was also receiving mycophenolate mofetil, prednisone, and statins. Labs showed CPK 20,877 IU/L, AST 453, ALT 576, and creatinine 1.7 mg/dL. Toxic myopathy was diagnosed.

Decision-making: Statins and cyclosporine were discontinued, and intravenous fluids started. Muscle strength and symptoms improved; CPK and creatinine normalized (1.2 mg/dL). No dialysis was needed. Vascular ultrasound revealed volume overload, managed with diuretics. Everolimus

was restarted for graft vasculopathy with calcium monitoring. LDL therapy was switched to ezetimibe and PCSK9 inhibitors.

Conclusion: Statins prevent graft vasculopathy but can cause severe toxicity when combined with immunosuppressants like cyclosporine. Early recognition and drug withdrawal reversed symptoms and avoided dialysis.



Control Number: 25-CCC-522-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-23
23

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: UNREPAIRED TRICUSPID ATRESIA AND SINGLE CORONARY TRUNK IN AN ADULT FEMALE

Isaías Giovanni Dueñaz Díaz, Martha Morelos Guzmán, Tejeda González Roberto Carlos, Emmanuel Francisco Murguía Lugo, Valeria Sandoval

Author Martínez, María de la Salud Fraga Ramos, Victor Yair Gutierrez Rangel, Jesús
Block: Enrique Dueñaz Díaz, María Fernanda Martínez Saavedra, Ingrid Oralía Tellés Romero, Julián A. Buecheli Buesaco, Dulce María Sánchez Rangel, Morelia General Hospital “Dr. Miguel Silva”, Morelia, Mexico

Background: Tricuspid atresia and single coronary trunk is a very rare association; very few cases have been reported, with an estimated prevalence of 2/10,000 and 7/100,000 respectively. The prevalence of the concomitant lesions being found is unknown.

Case: A 32 year old female presented with a history of exertional dyspnea and cyanosis, recently, ten days prior to admission with dyspnea at rest. Physical exam showed central cyanosis, jugular ingurgitation, extremities with clubbing. Echocardiography revealed tricuspid atresia, ventricular septum defect of 1.7 millimeters (mm), atrial septum defect of 2.5 mm and a hypoplastic right ventricle.

Decision-making: Patient was started on supplementary oxygen and loop diuretic, with improvement of the symptoms. A Cardiac computed tomography was performed, along with the previous defects, pulmonary stenosis was described (associated with a pulmonary main trunk of 15 mm, left branch of 10 mm, right branch of 21mm), classifying tricuspid atresia as

Abstract Body:

IB; single coronary trunk was also found, arising from the right valsalva sinus, classified as R-II-A. Patient was discharged with medical treatment, and later referred to a tertiary care center.

Conclusion: This case exemplifies the challenge that is diagnosing complex congenital heart diseases, and the diverse spectrum in combinations that can be found. The patient is an exemption to the prognosis of most cases without corrective surgery, which only shows us the importance of early diagnosis.



Control Number: 25-CCC-523-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-24

24

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PRECAPILLARY PULMONARY HYPERTENSION (PH) AND SYSTOLIC ANTERIOR MOTION OF THE MITRAL VALVE (SAM): A CONFUSING CASE OF A COMMON PATHOLOGY

Author Block: Dulce Lopez, Beatriz Dominguez, Diego Ramirez-urizar, Hospital San Vicente, Guatemala, Guatemala

Background: A 31-year-old female patient presented emergency department with three days of hemoptysis, peripheral cyanosis and shortness of breath. The patient had a prior history of high probability of PH, polycythemia and hyperuricemia.

Case: Physical examination revealed central cyanosis, peripheral oedema, auscultation of a systolic heart murmur at the left sternal border, and a prominent second heart sound and no hemoptysis was found and the time in the ER. The following relevant tests were performed: ECG with right ventricular hypertrophy, right axis deviation, right atrial dilation, and

Abstract Body: incomplete right bundle branch block. NT-pro-BNP: 5430 ng/dL, hemoglobin: 21.7 gr/dL and hematocrit: 69%. Chest X-ray: prominent pulmonary vascular tree and a prominent aortic button. Echocardiogram: left ventricular (LV) septal hypertrophy with systolic anterior motion of the mitral valve, LVEF was 66 % and grade I diastolic dysfunction. A dilated (42 mm) and hypertrophic (10 mm) right ventricle (RV). The RV/LV ratio was 1. The eccentricity index was 1.6 in systole and 1.57 in diastole and high probability of PH. Negative bubble test. Computer tomography pulmonary angiography with indirect signs of PH, no evidence of thrombosis with an alveolar infiltrate in the left upper lobe suggesting pneumonia.

Decision-making: The patient was transferred to the ICU with right heart failure and community acquired pneumonia for clinical monitorization and discharged to the pulmonary vascular department. Right heart catheterization was performed, with mean pulmonary artery pressure of 87 mmHg, PVR of 21.7 WU and cardiac output of 3.8 lt/min and a significant increase of oxygen saturation between RV and PA (6%) with 67% hematocrit. With these findings a cardiac magnetic resonance imaging (MRI) was performed revealing patent ductus arteriosus (PDA) of 13 mm Krikkenko B.

Conclusion: The patient was stratified as an intermediate risk patient and was discharged with Sildenafil, Furosemide and Spironolactone. SAM is a rare representation of PDA and can confuse your diagnostic approach. Clinical features like polycythemia and central cyanosis should make you look else ware from hypertrophic cardiomyopathy.

Control Number: 25-A-526-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-25

25

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SEVERE HYPERTROPHIC CARDIOMYOPATHY IN AN INFANT WITH POMPE DISEASE: A CASE REPORT

Bryan Calderin Barreto, Katiushka Guilliani De Leon, Elvia Rivera Figueroa,

Author Block: Enrique Carrion, Pediatrics Residency Program, Puerto Rico Children's Hospital, Bayamon, PR, USA

Background: Infantile-onset Pompe disease is a severe lysosomal storage disorder caused by acid alpha-glucosidase deficiency, resulting in progressive glycogen accumulation in cardiac and skeletal muscle.

Hypertrophic cardiomyopathy is a cardinal feature of infantile-onset Pompe disease and a major contributor to morbidity and early mortality.

Methods: This is the case of an 11-month-old girl with Infantile-onset Pompe disease who developed a viral lower respiratory tract infection complicated by pneumonia and respiratory distress. Initial treatments

Abstract Body: included non-invasive ventilation, bronchodilators, and antibiotics, while viral serologies for RSV, COVID-19, and influenza were negative. An ECG showed sinus tachycardia, a short PR interval, biventricular hypertrophy, and left axis deviation. An echocardiogram revealed severe concentric left ventricular hypertrophy but preserved ventricular function. As her condition worsened, treatments were optimized, and propranolol was withheld to prevent further bronchospasm. Despite these efforts, her condition deteriorated with persistent hypoxemia and elevated brain natriuretic peptide levels. Imaging showed ongoing pulmonary opacification and cardiomegaly, leading to her transfer to a tertiary center for enzyme replacement therapy with alglucosidase alfa. Unfortunately, she

experienced progressive respiratory failure and refractory arrhythmia, resulting in cardiorespiratory collapse.

Results: This case highlights the cardiac vulnerability of infants with Pompe disease during respiratory infections. The ECG findings indicated glycogen infiltration in the myocardium, while echocardiography confirmed the presence of severe hypertrophic cardiomyopathy.

Conclusion: This case highlights the critical interplay between respiratory infections and cardiac decompensation in infants with Pompe disease.

Prompt recognition of cardiac involvement through electrocardiography and echocardiography, careful therapy adjustment, and timely initiation of enzyme replacement therapy are essential for improving outcomes in this vulnerable population.

Control Number: 25-CCC-530-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-26

26

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FROM AV BLOCK TO CARDIOMYOPATHY: PACEMAKER MALFUNCTION CAUSING TAKOTSUBO CARDIOMYOPATHY—A CASE REPORT

Author Block: Jorge Illanas Hernandez, Xiomara Cruz-Bracero, Milton Carrero-Quiñones, Mayaguez Medical Center, Mayaguez, PR, USA

Background: Takotsubo cardiomyopathy (TTC), also known as stress-induced cardiomyopathy, is a condition characterized by acute, reversible left ventricular systolic dysfunction that often mimics acute coronary syndrome (ACS) in its clinical presentation. The development of TTC is typically associated with external stressors, either physical or emotional in nature. The literature describes instances of pacemaker malfunctions leading to hemodynamic instability and myocardial stress, potentially precipitating TTC.

Abstract Body: **Case:** We present the case of a 79-year-old female with a medical history of systemic lupus erythematosus, fibromyalgia, hypertension, pulmonary fibrosis, and type 2 diabetes mellitus, who presented to the emergency department with progressive dizziness and near-syncope over the past two weeks. On arrival, she was bradycardic at 32 bpm, and electrocardiography revealed complete atrioventricular block, prompting successful dual-chamber pacemaker placement. Twelve hours post-implantation, the patient developed sudden-onset severe chest pain, nausea, an irregular rhythm, and ST-segment elevations on anterior leads.

Decision-making: Device interrogation revealed a right ventricular lead dislodgement, which was promptly repositioned. Echocardiogram performed showed an ejection fraction of 30-35%, left ventricular apical

akinesia, and basal hyperkinesia—findings consistent with TTC. This was later confirmed by coronary angiography, showing no obstructive coronary artery disease.

Conclusion: This patient's unusual presentation of Takotsubo cardiomyopathy following a mechanical device complication underscores the rarity of such triggers, making the case particularly unique. Although the incidence of this complication is estimated to be approximately 0.5%, it highlights the importance of considering cardiac device malfunction in patients with new-onset cardiomyopathy. Early recognition and correction of device-related issues are essential, as timely intervention can lead to rapid clinical improvement and prevent further complications.

Control Number: 25-CCC-543-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-27

27

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SUCCESSFUL RECOVERY FROM SEVERE PERIPARTUM CARDIOMYOPATHY COMPLICATED BY CARDIOGENIC SHOCK, MULTI-ORGAN FAILURE, AND ECMO-RELATED CRITICAL EVENTS IN A YOUNG WOMAN

Francisco Villadiego, LAURA MENDOZA, Claudia Poveda, Claudia Jaramillo,

Author Block: Fernan Mendoza, Fundación Clínica Shaio, Bogotá, Colombia, Universidad El Bosque, Bogotá, Colombia

Background: Peripartum cardiomyopathy (PPCM) is a rare but potentially life-threatening cause of heart failure that disproportionately affects women from disadvantaged socioeconomic backgrounds. These patients often present with more severe diseases and face barriers to accessing advanced therapies.

Case: We present the case of a 23-year-old postpartum woman who presented with cardiogenic shock (SCAI-D) and severe biventricular dysfunction, with a left ventricular ejection fraction (LVEF) less than 10%.

Abstract Body: Veno arterial extracorporeal membrane oxygenation (VA-ECMO) was initiated early. Her course was complicated by: (1) left ventricular (LV) distension requiring intra-aortic balloon pump and surgical venting; (2) mediastinitis following sternotomy and mediastinal packing; (3) critical lower extremity ischemia requiring tibial and femoral thrombectomy; and (4) a mobile intracavitary thrombus requiring long-term anticoagulation with warfarin. Cardiac magnetic resonance imaging (MRI) was not performed due to her critical condition and ECMO dependence, but PPCM was diagnosed based on the clinical presentation, echocardiographic findings and the absence of preexisting structural disease. Prolactin-suppressing

therapy could not be administered due to the lack of availability of bromocriptine and cabergoline. Guideline-directed medical therapy (GDMT) for heart failure was initiated after gradual weaning from ECMO and hemodynamic stabilization.

Decision-making: After 10 days of VA-ECMO with LV venting, LVEF improved to 28%. Liver and kidney function normalized, the INR stabilized, and the patient was discharged in stable condition with full GDMT and multidisciplinary follow-up.

Conclusion: Early ECMO support is crucial in severe PPCM, but close monitoring for complications, such as LV distension, mediastinitis, and limb ischemia, is equally essential. The diagnosis can be clinically supported even without an MRI when the presentation is typical, and recovery occurs with appropriate treatment.

Control Number: 25-A-547-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-28
28

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PERFORMANCE OF LEVO D SCORE IN PATIENTS WITH ADVANCED HEART FAILURE

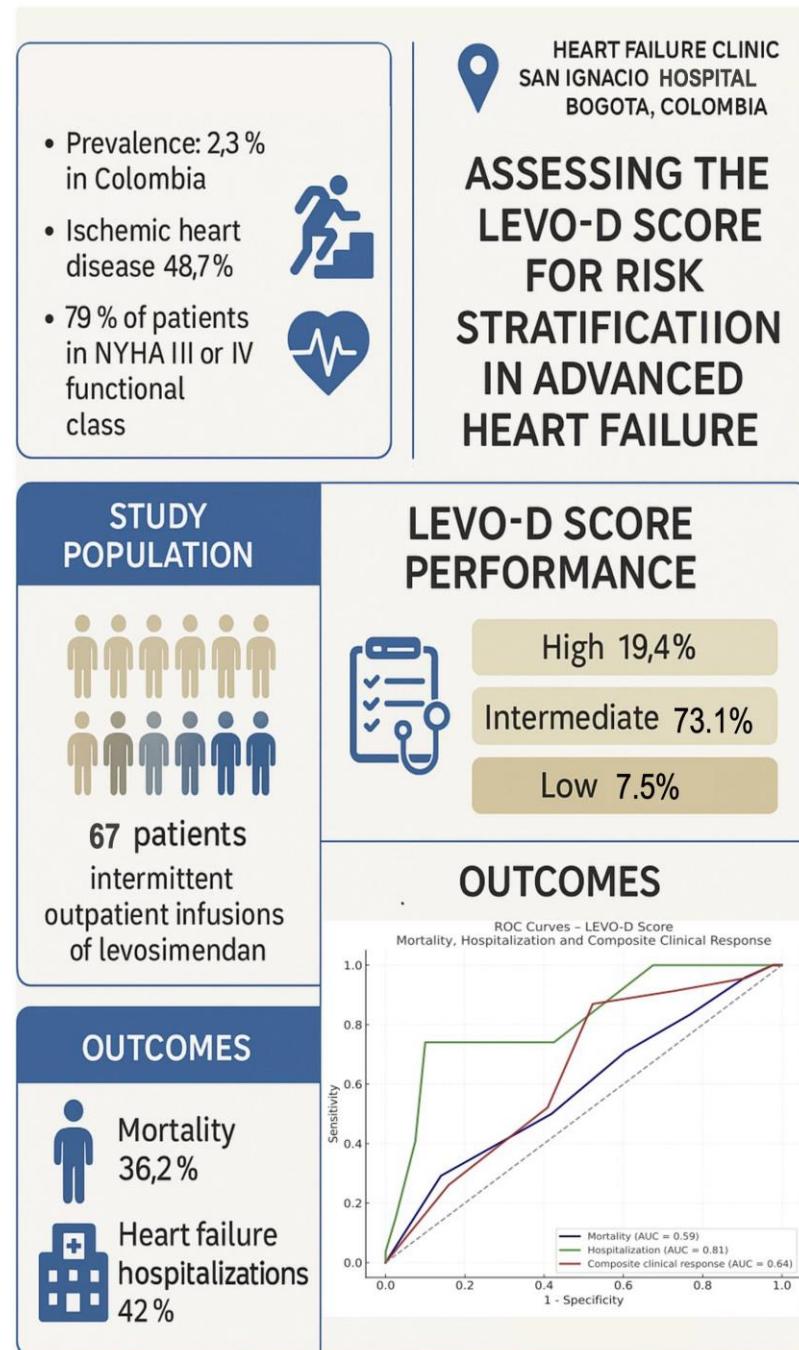
Author Block: Mauricio Manrique, Angel Garcia, Nicolas Rodriguez Medina, Edward Caceres, Alejandro Mariño, Pontificia Universidad Javeriana, Bogotá, Colombia, Hospital Universitario San Ignacio, Bogotá, Colombia

Background: Advanced heart failure is a prevalent and burdensome condition, thus requiring effective therapies. Ambulatory intermittent Levosimendan infusion has been used to reduce cardiovascular events, though response rates vary. This study assesses the LEVO-D Score as a predictive tool in patients receiving Levosimendan infusions under standardized conditions.

Abstract Body: **Methods:** We conducted an observational study at the Heart Failure Clinic of San Ignacio University Hospital. Sixty-seven patients received a median of 10 levosimendan intermittent infusions and were followed for a mean of 18 months. The LEVO-D score performance was evaluated using ROC curves and descriptive analyses.

Results: Patients were elderly, with high comorbidity burden and advanced functional class. All received beta-blockers and most had a high rate of guideline-directed therapy. At 18 months, mortality was 36.2% and hospitalization rate was 42%. The LEVO-D Score showed good predictive value for hospitalization (AUC 0.81), moderate for clinical response (AUC 0.64), and poor for mortality (AUC 0.59). A cut-off of ≥ 1.0 provided the best balance between sensitivity and specificity for identifying responders.

Conclusion: The LEVO-D Score showed consistent discriminatory capacity in our cohort despite a high rate of optimal medical therapy and a low rate of edge-to-edge transcatheter repair, thus supporting its utility and encouraging further validation in diverse clinical settings.



Control Number: 25-CCC-554-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-29

29

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: NEW-ONSET CHEST PAIN IN A YOUNG ADULT AS THE FIRST MANIFESTATION OF FABRY DISEASE

Author Block: Luis roberto De la paz, Diego Alberto Reyes Nava, Alberto Tejero Langarica, Centro Medico ISSEMYM Lic. Arturo Montiel Rojas, Toluca, Mexico

Background: Acute chest pain in a young adult without chronic medical conditions and family history of Fabry disease

Case: 43 year-old male admitted to the emergency department for acute chest pain. The pain occurred at rest, gradually worsened described as an constricting discomfort located retrosternally, not irradiated to neck or jaw and without diaphoresis or nausea. Lasted 15 minutes.

After conducting a thorough pain semiology, we concluded it was of cardiac origin and chest pain workup was initiated, electrocardiogram (ECG) and blood test were taken. After asking about his medical history only one

Abstract Body: abnormal detail stood out, his mother was undergoing evaluation for Fabry disease. He reported been presenting the same chest pain on the past 10 days. He also described hearing loss, anhidrosis, cold intolerance and dyspnoea on exertion.

Vital signs were normal, physical examination reveal multiple angiokeratomas on upper trunk (dark red papules). No heart murmurs or other abnormal signs were detected.

ECG showed hypertrophy of right and left ventricle with pressure overload. Focused echocardiogram revealed concentric hypertrophy with no wall motion abnormalities and left ventricular ejection fraction of 62%. Hight sensitivity troponin I was elevated with 40 ng/l, renal function was normal.

Decision-making: After initial evaluation we concluded that the patient symptoms were consistent with infiltrative cardiomyopathy rather than coronary artery disease. The patient was discharged without the need for invasive coronary angiography. We ordered cardiac MRI, alpha galactosidase activity and exercise ECG as part of the outpatient follow-up by our heart failure clinic. Dapagliflozin 10 mg and furosemide 40 mg were initiated as treatment for Heart Failure with preserved ejection fraction.

Conclusion: This case highlights the importance of a thorough differential diagnosis in young patients with acute chest pain. Although ECG and echocardiogram findings were consistent with hypertrophy cardiomyopathy, clinical signs and family history pointed towards a late - onset Fabry disease. Early recognition is vital to prevent disease progression and to improve quality of life.

Control Number: 25-CCC-570-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-30
30

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: UNTREATED TETRALOGY OF FALLOT IN INFANCY: PRESENTATION WITH SEVERE HYPOXIA AND SURGICAL TREATMENT.

Romina Daniela Pérez Domínguez, Ana Alarcón Martínez, Monserrath Basilio Téllez, Jesús Alberto Blanco Hernández, Jonathan Reyes-Rivera, Christian Guillermo Tapia Cervantes, Carla Domínguez, Andrea Magdalena Luna Hernández, Karla Alejandra Pupiales Dávila, Jorge Sanchez, Stephanie Angulo, Edgar Garcia Cruz, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico

Background: Unrepaired tetralogy of Fallot (ToF) in infancy is rare in adults and poses significant diagnostic and therapeutic challenges due to long-standing hypoxemia and multisystemic involvement.

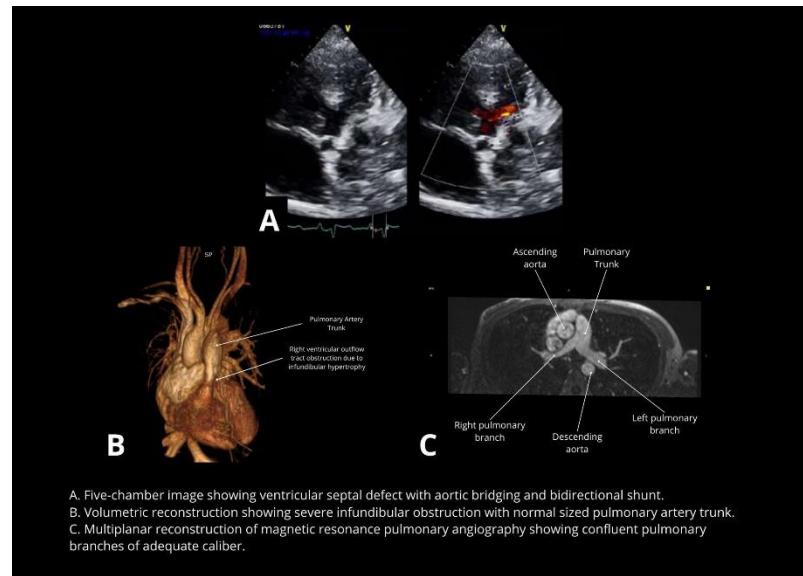
Case: A 28-year-old male with uncorrected TOF presented with a severe hypoxic crisis (SpO_2 44%), right heart failure, and evidence of multisystemic repercussions, including polycythemia, thrombocytopenia, and chronic kidney disease. He had been previously undiagnosed in childhood and was not under cardiology follow-up. Initial clinical assessment revealed cyanosis, elevated hemoglobin, and signs of volume overload.

Decision-making: Due to severe pulmonary stenosis and significant valvular dysfunction, a two-step strategy was chosen: initial pulmonary valvuloplasty with partial oxygenation improvement, followed by corrective surgery with VSD closure, RVOT enlargement, and aortic, pulmonary, and tricuspid valve replacement. Postoperatively, severe bleeding required mediastinal packing

Abstract Body:

and pericardial drainage. Despite complications, the patient evolved favorably with multidisciplinary care.

Conclusion: This case illustrates the critical role of a multidisciplinary approach in managing complex adult congenital heart disease. Careful preoperative planning and coordinated postoperative care can lead to successful outcomes, even in high-risk cases with multisystemic involvement.



Control Number: 25-CCC-576-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-31

31

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: ACUTE HEART FAILURE WITHOUT OBSTRUCTION: THINK BEYOND ISCHEMIA

Humberto de Leon-Gutierrez, Cordelia Alanis-Garza, Alexis Cooley-

Author Block: Magallanes, Victor Beltrán, Jose Gildardo Paredes-Vázquez, Tecnológico de Monterrey, Monterrey, Mexico

Background: Recreational cocaine use can result in a wide range of cardiovascular complications: from hypertension to myocardial ischemia. These effects result from elevated catecholamine levels, which lead to heightened coronary vasoconstriction and increased myocardial oxygen demand.

Case: A 43-year-old male, with a recent diagnosis of heart failure and a 10-year history of cocaine use (ceased 4 months prior), presented to the emergency department complaining of dyspnea at rest, productive cough with clear sputum, and oppressive chest pain. After performing an ECG the patient was urgently transferred to the catheterization unit. Coronary angiography revealed no obstructive coronary artery disease; however, during the procedure, the patient became hemodynamically unstable. A TTE revealed a severely reduced LVEF of 10%. Inotropic and vasopressor support was initiated, and the patient was admitted for monitoring.

Decision-making: During hospitalization, the patient was initially weaned off inotropic support. Additionally laboratory studies revealed elevated inflammatory markers, such as: leukocytosis of 15,000/ μ L, CRP at 103 mg/L, and procalcitonin at 79 ng/mL; prompting empirical antibiotic therapy for a suspected pulmonary infection. Despite interventions the patient's

Abstract Body:

clinical status deteriorated, developing increased oxygen requirements and septic encephalopathy. The patient's progressive hemodynamic instability, as indicated by episodes of recurrent hypotension, led to the reinitiation of vasopressors and broadening of antimicrobial therapy spectrum. Given his poor prognosis and severely impaired cardiac function, the patient signed an advanced directive against intubation. Despite best supportive measures, the patient's respiratory status deteriorated further and he died 24 hours later.

Conclusion: Acute heart failure is typically driven by an underlying etiology, whose prompt identification and management are critical for stabilizing the condition, as well as improving patient outcomes.

Control Number: 25-CCC-583-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-32
32

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CASE STUDY IN CHAGASIC CARDIOMYOPATHY. A CLINICAL APPROACH

Author Block: Eduardo Flores, Ingeborg Becker, Faculty of Medicine, UNAM, Mexico City, Mexico, Experimental Medicine Unit, Center for Tropical Medicine, Mexico City, Mexico

Background: Chagas disease, caused by *Trypanosoma cruzi*, is endemic in Mexico, with 890 cases reported in 2024. It is the most common cause of cardiomyopathy in Latin America and a public health concern due to its complications: arrhythmias, heart failure, and sudden cardiac death.

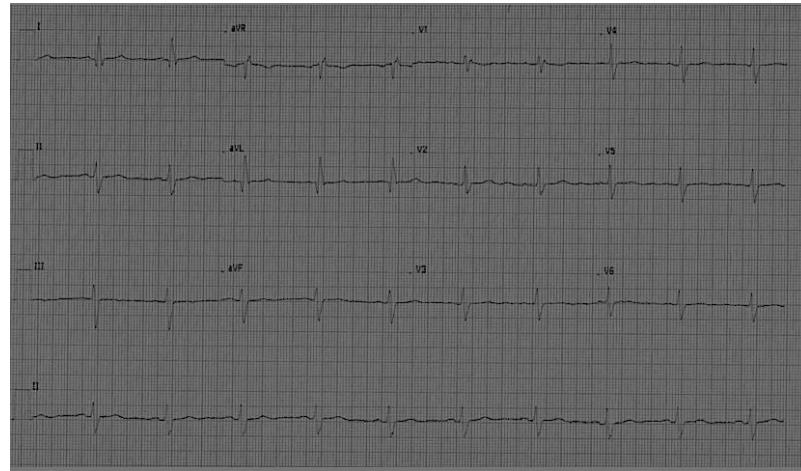
Case: A 61-year-old male rancher from Ocosingo, Chiapas, presented with fatigue, exertional dyspnea (NYHA class II), palpitations, and syncope over the past three months. He reported frequent exposure to triatomine bugs and a history of untreated febrile episodes.

Abstract Body: Treatment was initiated with benznidazole (5 mg/kg/day for 60 days), enalapril (5 mg/day), and carvedilol (6.25 mg every 12 hours). After three months, partial clinical improvement was observed, but ventricular arrhythmias persisted. Heart transplantation was considered.

Decision-making: This case represents an advanced form of Chagasic cardiomyopathy, commonly seen in rural areas with limited access to healthcare. The progressive clinical course and irreversible myocardial damage highlight the need for early diagnosis. In chronic stages, antiparasitic treatment has limited effectiveness; thus, management should focus on hemodynamic stabilization, arrhythmia control, and heart

transplantation in selected cases.

Conclusion: Chagas disease remains underdiagnosed in Mexico. Early identification in endemic regions is key to preventing progression to chronic cardiomyopathy, which is difficult to manage and carries a poor prognosis.



Control Number: 25-A-463-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-33

33

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: EFFECTS OF CARDIOVASCULAR REHABILITATION ON MYOCARDIAL ISCHEMIA AND EXERCISE CAPACITY IN PATIENTS WITH CHRONIC CORONARY DISEASE

Author Block: Leonardo Pilon, Guillermo Mazzucco, Sebastián Viale, Mailen Gentili, Ciribé María Belén, Albertina Pujol, Valentina Moretto, Agostina Giannone, Sabrina Urquiza, Luciana Ramirez, Santiago Cueto, Adrian Puig, Josefina Arguello, Abel Magini, Silvana Lopez, Jorge Lopez, Nicolas Chichizola, Gerardo Oscar Zapata, SR, Rodrigo Torres Castro, Alejandro Berenguel, Ana Lista Paz, Ane Arbillaga-Etxarri, Héctor Bonaccorsi, Cardiovascular Institute of Rosario, Rosario, Argentina, Rafaela Ambulatory Cardiovascular Center, Rafaela, Argentina

Background: Myocardial ischemia (MI) is a common finding in patients with chronic coronary disease (CCD). Supervised exercise training represents a cornerstone of cardiovascular rehabilitation (CVR) with robust evidence supporting its role reducing cardiovascular morbidity and mortality, in addition to improving modifiable cardiovascular risk factors. The objective

Abstract Body: of our study was to assess whether a structured CVR program of at least three months improves MI and exercise capacity (EC) in patients with CCD.

Methods: A retrospective cohort study was conducted to identify patients diagnosed with CCD and documented MI who had completed at least three months of a structured CVR program, and undergone two cardiac SPECT scans: the first at least a year prior to start the CVR, and the second no longer than a year after. A group of patients with similar characteristics who have not performed CVR were chosen. All SPECT studies were analyzed by

blinded nuclear cardiologists and combined with ergometric stress testing using the Bruce protocol. Patients undergoing any form of coronary revascularization between both SPECT were excluded. The primary endpoint was the change in MI and the secondary endpoint was the change in EC.

Results: n = 64 (32 in each group) patients were included, obtaining a beta of 97% with an alpha of 95%. No significant differences were found in the baselines characteristics of both group (except a higher number of segments affected by ischemia in the CVR group [2 segments 2 - 4] vs [2 segments 1 - 3]; p= 0, 03). In CVR group, it was observed a significant reduction of stress-induced ischemia in all the variables analyzed (eg. number of segments of myocardium affected [2 vs 0; p<0,001] and the severity score of ischemia in those segments [2 vs 0; p<0,001]). Significant improvements were also observed in the exercise test length (p<0,001) and METs achieved (p = 0,001). Similar results were observed comparing development of MI and EC between CVR and non CVR groups. Finally, we observed a significant reduction in positive ergometric stress testing between both groups (10 vs 18; p = 0,044).

Conclusion: In our population, the implementation of a CVR program of at least 3 months improves MI and EC in patients with CCD.

Control Number: 25-CCC-472-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-34

34

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: ENDOVASCULAR REMOVAL OF A SUBDERMAL IMPLANT EMBOLIZED TO A SEGMENTAL BRANCH OF THE PULMONARY ARTERY

Author Block: Fernando Arturo Santibáñez García, Jose Ramon Benitez Tirado, Centro Médico Naval, Cdmx, Mexico

Background: Pulmonary embolization of subdermal contraceptive implants is infrequent yet potentially life-threatening, with an incidence of 1.23-3.17 per 100,000 devices. Presentation ranges from incidental radiographic detection to hemoptysis, syncope, chest pain or dyspnea. Percutaneous retrieval is first-line therapy, though endothelialization may hinder device mobilization.

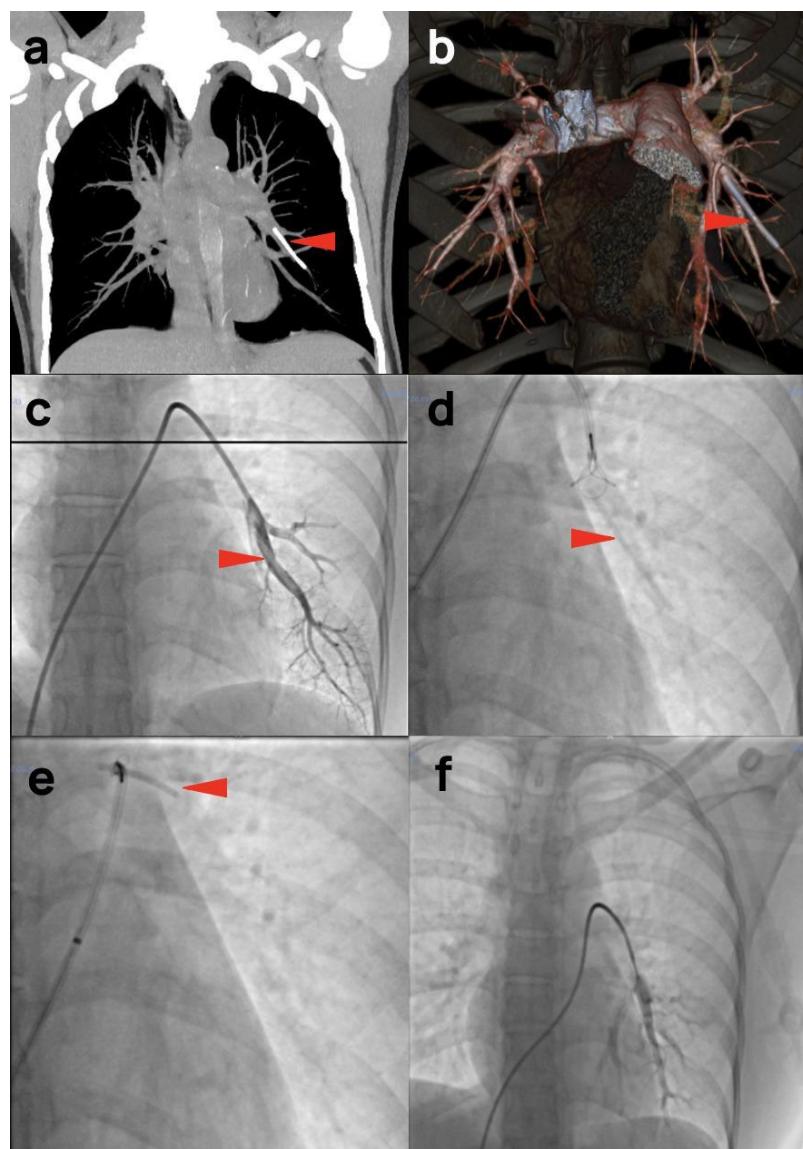
Case: A 25-year-old woman, three years post-postpartum implant insertion, was referred after two failed localization attempts. Chest CT angiography identified the rod in an anterior basal segmental branch of the left lower lobe pulmonary artery. She reported syncope, pleuritic chest pain and exertional dyspnea, prompting urgent intervention.

Decision-making: A multidisciplinary team opted for endovascular removal. Under local anesthesia, a femoral approach was used to advance a guidewire and snare catheter. The implant was successfully retrieved without complications. Post-extraction angiography confirmed vessel integrity and no endothelialization despite prolonged embolization.

Conclusion: Early diagnosis and multidisciplinary planning are key in managing pulmonary implant embolization. Endovascular removal is first-line, with surgery reserved for unfeasible cases. Standardized protocols and

Abstract Body:

experience sharing from specialized centers will help improve outcomes and ensure safety.



Control Number: 25-CCC-473-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-35
35

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: NOVEL USE OF THE JAVELIN INTRAVASCULAR LITHOTRIPSY DEVICE IN COMPLEX CALCIFIED OCCLUSIONS: A MULTI-TERRITORY VASCULAR EXPERIENCE

Author Block: Ermilo Echeverria, Juan Pastor, Luis Pech, Memorial Regional Hospital, Miami, FL, USA, Universidad Marista de Merida, Merida, Mexico

Background: The Javelin device is a first-of-its-kind forward intravascular lithotripsy (IVL) approach, that transforms the treatment of difficult to cross lesions by using IVL to modify heavily calcified plaques and facilitate vessel recanalization.

Case: Case 1: A 73-year-old man with peripheral artery disease and prior interventions presented with right lower extremity claudication. Imaging revealed a chronic total occlusion of the right superficial femoral artery (SFA) with tandem calcified stenoses.

Abstract Body: Case 2: A 69-year-old man with bilateral claudication and previous femoropopliteal bypass surgery, found to have a heavily calcified left SFA occlusion, resistant to conventional wire escalation.

Case 3: An 80- year- old man patient with subclavian steal syndrome and occlusion of the left subclavian artery presented with recurrent symptoms. Attempts at crossing the lesion had failed due to a heavily calcified proximal cap.

Decision-making: In all cases, the Javelin IVL system was chosen due to the presence of heavily calcified chronic total occlusions. Its forward-directed energy allowed controlled lesion entry and plaque modification, with

successful revascularization across multiple vascular beds, while minimizing complications such as distal embolization and residual stenosis.

Conclusion: The Javelin system offers a safe and effective novel option for the treatment of complex calcified occlusions, supporting its role in expanding therapeutic strategies for high-risk patients.

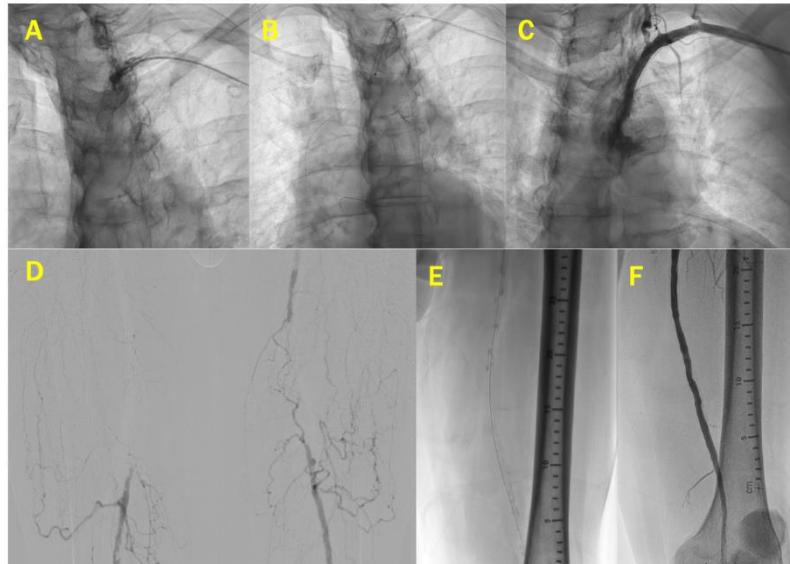


Figure 1. (A-C) Angiographic sequence showing occlusion of the left subclavian artery with delayed filling of the vertebral artery; successful recanalization achieved using the Javelin IVL device. (D-F) Superficial femoral artery (SFA) chronic total occlusion; (D) Pre-procedural angiogram revealing severe calcification and reconstitution via collaterals. (E) Javelin IVL catheter delivering lithotripsy pulses. (F) Post-procedural angiogram showing restored luminal patency and stenting with supera stent 6 x 150 mm.

Control Number: 25-A-475-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-36

36

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: IMPACT OF PERCUTANEOUS CORONARY INTERVENTION IN PATIENTS UNDERGOING TRANSCATHETER AORTIC VALVE IMPLANTATION: A META-ANALYSIS.

Author Daniel Paulino González, Daniel Alejandro Navarro-Martinez, Nathalia Andrea Lozano-Quiroga, Valentina Esguerra-Romano, Victor Andres Castillo, **Block:** Miguel Angel Pardiño-Vega, Universidad Autónoma Metropolitana-Xochimilco, Mexico city, Mexico

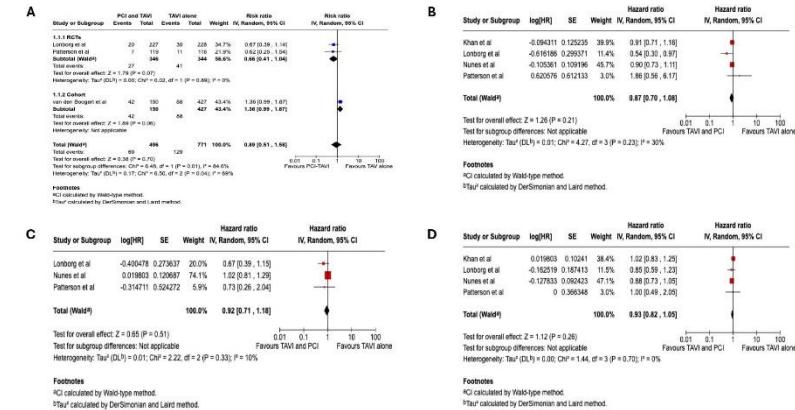
Background: Aortic stenosis (AS) is the most prevalent heart valve disease, and coronary artery disease (CAD) is a common comorbidity in this population. The benefit of routine percutaneous coronary revascularization (PCI) of stenotic coronary arteries prior to transcatheter aortic valve implantation (TAVI) remains uncertain.

Methods: A meta-analysis was conducted following PRISMA guidelines, with a protocol registered in PROSPERO. We searched studies from PubMed, Embase, and Cochrane until February 2025. Inclusion criteria were: 1) patients with AS and CAD, 2) intervention: PCI previous to TAVI, 3) comparator: TAVI alone.

Results: Ten studies met the inclusion criteria: 2 randomized controlled trials and 8 observational studies, with a total of 13,276 patients. Of these, 5,833 underwent PCI prior to TAVI, and 7,442 received TAVI alone. No significant differences were found in cardiovascular death (RR 0.89, 95% CI: 0.51-1.58; $I^2 = 69\%$), myocardial infarction (HR 0.87, 95% CI: 0.70-1.08; $I^2 = 30\%$), stroke (HR 0.92, 95% CI: 0.71-1.18; $I^2 = 0\%$), or mortality (HR 0.93, 95%

CI: 0.82-1.05; $I^2 = 0\%$).

Conclusion: In the present meta-analysis, routine PCI before TAVI showed no significant benefit in major outcomes, supporting an individualized approach to revascularization decisions.



Control Number: 25-A-484-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-37

37

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: CANGRELOR DURING PCI IN CARDIOGENIC SHOCK AND CARDIAC ARREST: A SYSTEMATIC REVIEW AND META-ANALYSIS OF 2,722 HIGH-RISK PATIENTS

Adolfo Calderón-Fernández, Hannia Maribel García Venegas, Arath Josué Campos Muñoz, Sayeli Elisa Martínez Topete, Seni Ocampo-Calderón, Nishly Alejandra De La Luz-Solorzano, Diego Aguirre Villegas, SR, Stefanni Yanelly Rosales Garcia., Juan Jose Parcero, Autonomous University of Baja California, Tijuana, Mexico, National Institute of Medical Sciences and Nutrition Salvador Zubirán, Ciudad de México, México, Mexico City, Mexico

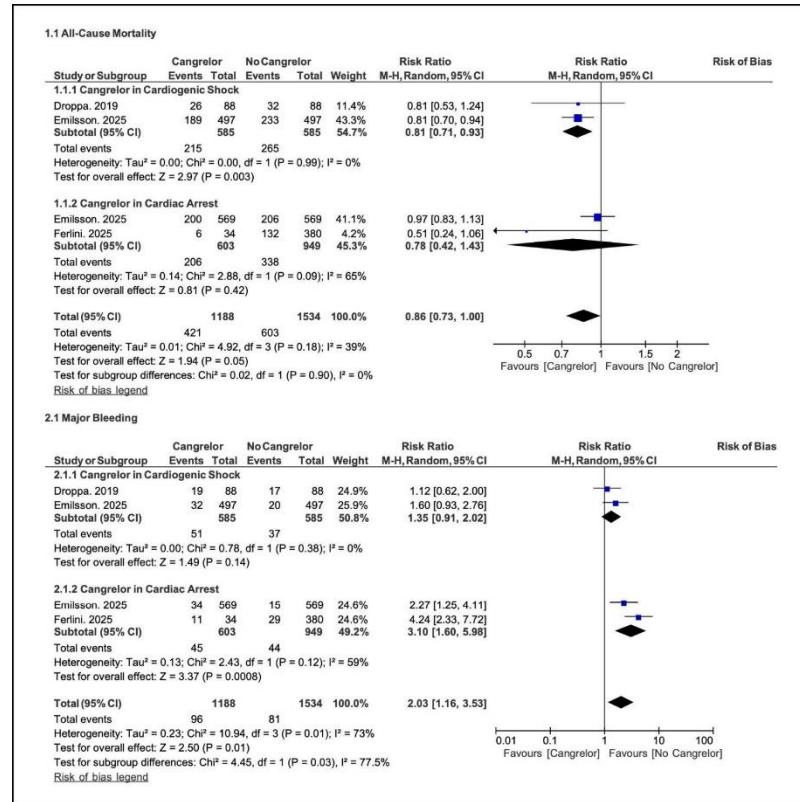
Background: Patients with cardiogenic shock (CS) or out-of-hospital cardiac arrest (OHCA) undergoing PCI face delayed absorption of oral P2Y12 inhibitors, increasing thrombotic risk. Cangrelor, an intravenous agent with immediate effect, may offer benefit in these settings. This meta-analysis evaluates its impact on outcomes.

Methods: We searched PubMed and EMBASE through May 1, 2025, identifying observational studies comparing cangrelor vs oral P2Y12 inhibitors during PCI in CS or OHCA. Outcomes included all-cause mortality, major bleeding, stent thrombosis, and stroke. Risk ratios (RR) with 95% confidence intervals (CI) were pooled using a random-effects model, and heterogeneity was assessed with the Chi-squared test and I^2 . Subgroup analysis was prespecified by clinical presentation.

Results: Four studies (2,722 patients: 1,170 CS; 1,552 OHCA) were included. In CS, cangrelor significantly reduced mortality (RR 0.81; 95% CI

0.71-0.93; $p = 0.003$) without increasing bleeding (RR 1.35; 95% CI 0.91-2.02). In OHCA, mortality benefit was not significant (RR 0.78; 95% CI 0.42-1.43), while bleeding risk was elevated (RR 3.10; 95% CI 1.60-5.98; $p = 0.0008$). No differences in stroke or stent thrombosis were found

Conclusion: Cangrelor was associated with improved survival in CS without excess bleeding, supporting its use in this population. However, in OHCA, the elevated bleeding risk warrants caution. These findings support a phenotype-specific approach to antiplatelet therapy in high-risk PCI.



Control Number: 25-A-509-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-38
38

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: TRANSEPTAL ACCESS IN LEFT ATRIAL PROCEDURES: DOES RADIOFREQUENCY GUIDANCE IMPROVE EFFICIENCY AND SAFETY? A SYSTEMATIC REVIEW AND META-ANALYSIS OF 2,397 PATIENTS

Adolfo Calderón-Fernández, Joe Maldonado, Seni Ocampo-Calderón, Marcos Elian Ontiveros, Sayeli Elisa Martínez Topete, Efraín Castillo

Author Gutiérrez, Kenia Cornejo Alcantara, Stefanni Yanelly Rosales Garcia., Juan
Block: Jose Parcero, Autonomous University of Baja California, Tijuana, Mexico,
National Institute of Medical Sciences and Nutrition Salvador Zubirán,
Ciudad de México, México, Mexico City, Mexico

Background:

Radiofrequency (RF)-guided transseptal puncture (TSP) has emerged as a safer and more efficient alternative to mechanical needle access for left atrial (LA) procedures. While it is considered more efficient and safer than mechanical access, its advantages have not been fully quantified. This meta-analysis compares both strategies across procedural and safety outcomes.

Abstract

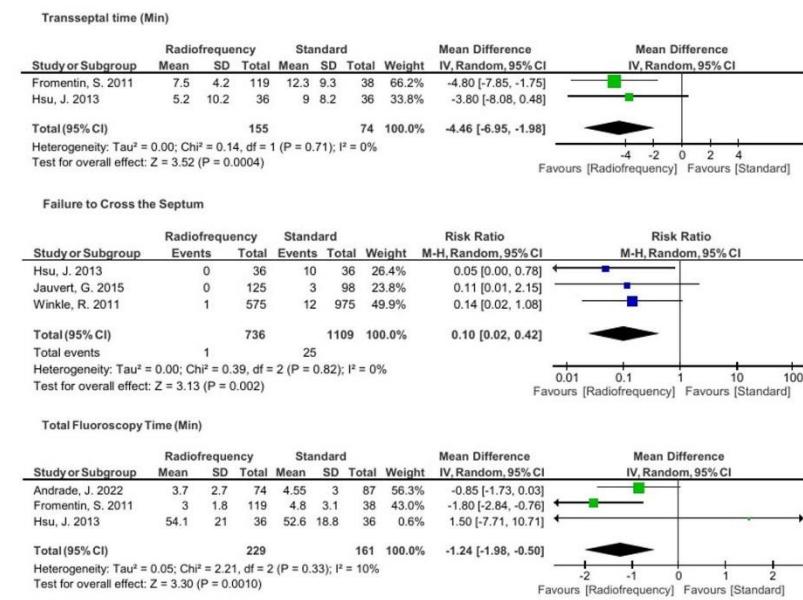
Body:

We searched in PUBMED and EMBASE until February 20th, 2025, identifying studies on 2,397 patients undergoing LA procedures with RF or standard TSP. Primary outcomes were total procedure time, transseptal time, septal crossing failure, fluoroscopy time, and cardiac tamponade. A random-effects model calculated risk ratios (RR) with 95% confidence intervals (CI), and heterogeneity was assessed with the Chi-squared test and I² statistic.

Results: RF significantly reduced transseptal time (MD -4.46 min, 95% CI: [-6.95, -1.98], $p = 0.0004$) and fluoroscopy time (MD -1.24 min, 95% CI: [-1.98, -0.50], $p = 0.001$). Critically, failure to cross the septum was 90% lower with RF (RR 0.10; 95% CI: [0.02, 0.42], $p=0.002$). Total procedure time and cardiac tamponade risk were similar between groups.

Conclusion: RF-guided TSP significantly reduces transseptal puncture time and septal crossing failures while maintaining a favorable safety profile.

These results support its adoption as the preferred strategy for efficient and reliable LA access in electrophysiological and structural heart procedures.



Control Number: 25-A-511-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-39

39

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: DISTANCE MATTERS: INCREASED HEART SCORES AMONG ACS PATIENTS PRESENTING FROM REMOTE AREAS IN PETÉN, GUATEMALA

Tanya Reyna, David Cao, Rahul Banerjee, Cesar Ortiz-Vargas, Carlos

Author Block: García-Martínez, Julio Vasquez-Gongora, Hospital Nacional de San Benito, San Benito, Guatemala

Background: Risk stratification is essential for optimizing care in acute coronary syndromes (ACS), especially in resource-limited settings. In Petén, Guatemala, Hospital Nacional San Benito (HNSB) faces severe constraints, including limited thrombolytic supply and no public access to percutaneous coronary intervention (PCI). The HEART score offers a practical tool to assess ACS severity and guide resource allocation. This study examined the relationship between geographic distance from HNSB and HEART score risk categories among ACS patients.

Methods: We conducted a retrospective chart review of 52 ACS patients **Abstract Body:** who presented to HNSB between 2023 and 2025. The HEART score (0-10 points)—based on history, ECG, age, risk factors, and troponin—was calculated for each patient. Unknown components were scored as zero. Patients were classified as low (0-3), moderate (4-6), or high (7-10) risk. Demographics, vitals, labs, length of stay, and treatment strategies were compared between moderate- and high-risk groups using Student's t-tests and chi-square analyses.

Results: Among the cohort, no patients were classified as low-risk, 16 (29.6%) were moderate-risk and 38 (70.4%) were high-risk. Patients presenting from >50 km were significantly more likely to be high-risk

(95.0%) than those from ≤ 50 km (56.3%) ($\chi^2 = 7.22, p = 0.0072$; Fisher's exact $p = 0.0037$; OR = 14.78). Other variables, including sex, heart rate, blood pressure, and in-hospital management, did not differ significantly between groups.

Conclusion: A high proportion of ACS patients in Petén present with high-risk HEART scores, particularly those traveling from remote areas. This disparity may reflect delayed presentation, but further research is needed to explore contributing factors—such as limited patient education, inadequate management of preexisting conditions, and systemic barriers to care in distant communities. Understanding these drivers is critical for developing targeted interventions that improve cardiovascular outcomes and optimize limited resources in Guatemala.

Control Number: 25-CCC-514-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-40
40

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PREVENTING AND MANAGING TAVI COMPLICATIONS IN REAL-WORLD PRACTICE: A CASE OF POP-UP AND RESCUE IMPLANTATION

Author Block: Gamaliel Alejandro Velasquez, SR, Juan Carlos Rivera Guerrero, Rafael Esparza, Carlos Javier Roque Palacios, Aaron I. Guzman Flores, ISSSTE C.M.N. 20 de Noviembre, Mexico City, Mexico

Background: Calcific aortic stenosis (AS) is a progressive disease that restricts aortic valve opening due to calcification and fibrosis of a bicuspid or tricuspid valve. It affects 1-2% of adults over 65 and up to 12% of those over 75. TAVI has become the preferred treatment in high-risk surgical candidates.

Case: A 77-year-old woman with long-standing hypertension presented with exertional angina and syncope. Physical exam revealed a midsystolic murmur radiating to the carotids. Echocardiography showed severe bicuspid AS with moderate regurgitation (AHA/ACC stage D1). Coronary angiography was unremarkable. TAVI with a self-expanding valve was planned.

Decision-making: During deployment, a “pop-up” occurred with the valve anchoring above the sinotubular junction. A second self-expanding valve was implanted under rapid pacing at 180 bpm, 5 mm below the annular plane. Optimal expansion was achieved, with a 3 mmHg residual gradient and no paravalvular leak. The patient had a stable recovery.

Conclusion: This case highlights a real-world TAVI complication and underscores the importance of prompt recognition and rescue strategies to

ensure procedural success in anatomically complex scenarios.

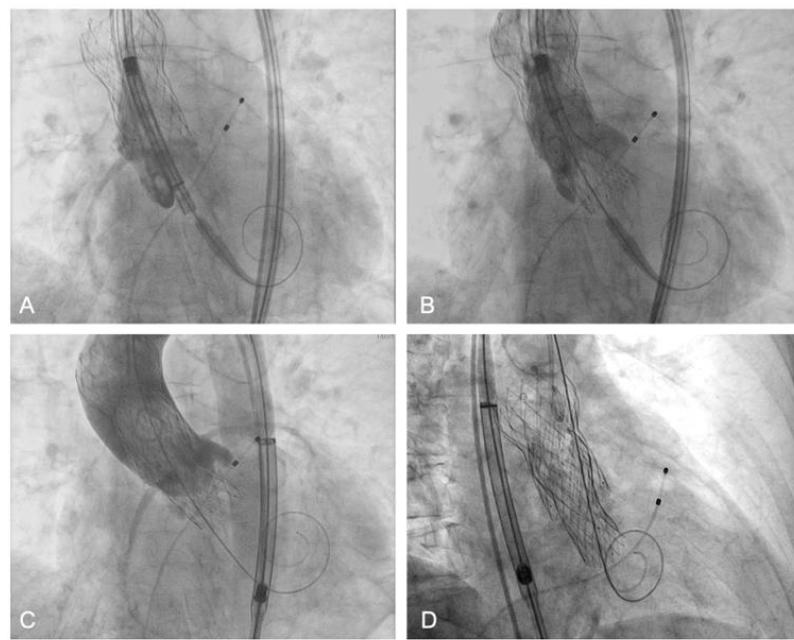


Figure 1: (A) Migration of the first self-expanding valve to the sinotubular junction is observed. (B) Deployment of a second self-expanding valve at the level of the aortic annulus is shown. (C, D) Final angiographic images confirm correct positioning of the second valve, without paravalvular leak and with preserved coronary ostia.

Control Number: 25-CCC-535-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-41
41

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: INCOMPLETE LEFT MAIN CORONARY ARTERY ATRESIA TREATED BY PERCUTANEOUS CORONARY INTERVENTION: A COMPLEX CASE REQUIRING A DIFFICULT DECISION

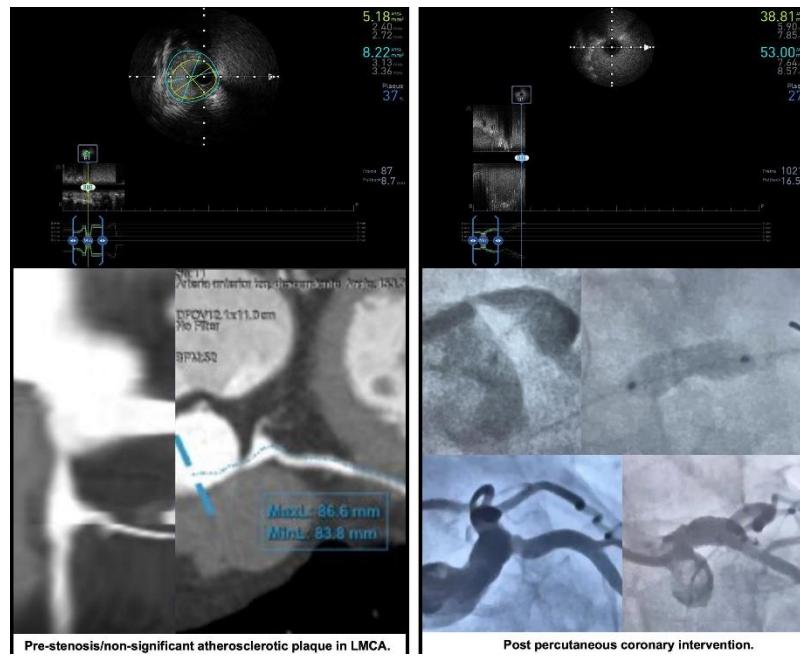
Author Block: Ivonne Hernández Montiel, Héctor Hugo Escutia Cuevas, Yessica Ivonne Rosas García, Marco Antonio Alonso Lima, Daniel Iván Pérez Vásquez, Hospital Puebla, Puebla, Mexico

Background: Left main coronary artery (LMCA) atresia is a rare congenital anomaly. The clinical presentation includes symptoms of myocardial ischemia, and patients may develop heart failure, arrhythmias, or sudden death. Diagnosis is made using imaging techniques such as echocardiography, cardiac computed tomography (CT), or coronary angiography. Surgical treatment is the treatment of choice and is recommended for patients with symptoms and myocardial ischemia.

Case: A 53-year-old woman with a history of dyslipidemia and a sedentary lifestyle presented with angina and dyspnea on moderate exertion. The stress echocardiogram was positive for ischemia. CT demonstrated partial LMCA atresia. Coronary artery bypass grafting (CABG) was refused.

Decision-making: The patient refused the first-line treatment. Angiographic and intravascular ultrasound evaluation of a 95% ostial LMCA stenosis was performed. A 5.0x12 mm drug-eluting stent was successfully implanted with a 6.5x15mm post-dilatation balloon through a minimalist radial approach, stretched to a maximum diameter of 6.4 mm, using intravascular ultrasound guidance.

Conclusion: Few cases of LMCA atresia have been published. CT is the most widely used noninvasive test to assess these abnormalities and its increasing use has led to increased recognition of this condition. Given advances in interventional cardiology, percutaneous treatment in these conditions represents a favorable and minimally invasive treatment option.



Control Number: 25-A-564-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-42

42

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: LEFT ATRIAL FUNCTION ASSOCIATED WITH SIGNIFICANT CORONARY ARTERY DISEASE

Abel Salvador Becerra Flores, Hector E. Flores Salinas, Guillermo Rodriguez Zavala, Evelin Guadalupe Gomez Enciso, J. Guillermo Delgado Gutierrez, Bobadilla Lopez Edgardo, Hector Jorge Ramirez Salas, Karina Patricia Pizarro Gonzalez, Hugo Ricardo Hernández García, Instituto mexicano del seguro social, centro medico nacional de occidente, Guadalajara, Jalisco, Mexico

Background: *Cardiovascular diseases are the top cause of death globally and nationally, with rising myocardial ischemia (1-2). This study assesses LA volume, LASr, and stiffness in relation to myocardial ischemia (3).*

Methods: *We included adults with confirmed myocardial ischemia and complete records. Exclusion: incomplete data, valvular disease, grade III obesity, AF, cardiomyopathies, or LA dilation. This was a retrospective, cross-sectional, analytic study. Sample size was calculated at 97 patients, based on 20% probability of LA dysfunction in ischemic myocardial disease, as indicated in the REMODEL-HF study (4).*

Results: *Of 97 patients, 75.3% were male, mean age 67.5 ± 10.8 years, BMI 27.2 ± 4 . Hypertension was the most common comorbidity (62.9%). Chronic coronary syndrome was present in 94.8%, and 78.4% had significant CAD. The most affected vessel was the LAD (60.8%).*

CAD distribution:

Left main: 7 (7.2%)

LAD: 59 (60.8%)

Circumflex: 39 (40.2%)

RCA: 33 (34%)

Revascularization:

Total: 76 (78.4%)

Abstract

Body:

PCI: 69 (70.4%)

CABG: 8 (8.2%)

Comparative Analysis When stratified by presence of significant CAD, the following findings were noted:

- Diabetes was more prevalent in CAD-positive group: 51.3% vs. 19% ($P=0.012$).
- Mean E/e' was higher in CAD-positive group: 11.1 ± 4.3 vs. 8.2 ± 1.5 ($P=0.003$).
- $LA Sr$ was lower in CAD-positive: $31.3 \pm 8.2\%$ vs. $37.2 \pm 4.2\%$ ($P=0.002$).
- LA stiffness index was lower in CAD-positive: 3.4 ± 1.9 vs. 4.6 ± 1.1 ($P=0.009$).
- LVEF was significantly lower: $52.13 \pm 13.9\%$ vs. $60.1 \pm 10.1\%$ ($P=0.01$).

Predictive Analysis Combining three significant echocardiographic parameters ($LA Sr \leq 28.5\%$, $E/e' \geq 10.5$, LA stiffness ≤ 3.7) resulted in an odds ratio (OR) of 3.9 (95% CI: 2.09-7.56; $P<0.0001$) for detecting significant CAD. Diabetes alone was associated with an OR of 7.4 ($P=0.008$). Cut-off performance for individual parameters is detailed below (Table 2):

Conclusion: Reduced LA reservoir strain, elevated E/e' , and decreased stiffness were linked to obstructive CAD.

Diabetes was an independent predictor of significant CAD.

Control Number: 25-A-577-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-43
43

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: IMPACT OF ADMISSION GLYCEMIC STATUS ON OUTCOMES IN STEMI PATIENTS UNDERGOING PCI: INSIGHTS FROM A PHARMACOINVASIVE APPROACH IN A MIDDLE-INCOME COUNTRY

Author Jose Antonio Cornejo-Guerra, Johnny Fuentes, Jose Alfaro, Beatriz Dominguez, Pablo José González Velásquez, Carlos Andres Sandoval Santos, Sonia Margarita Moreno-Díaz, Hospital General San Juan de Dios, Guatemala, Guatemala

Background: Diabetes mellitus (DM) is a well-established risk factor for ST-elevation myocardial infarction (STEMI). This study aims to compare clinical and hemodynamic outcomes based on glycemic status at admission within a generalized pharmacoinvasive approach.

Methods: Over twenty-one months, 182 patients underwent percutaneous intervention for STEMI. A total of 148 patients with HbA1c measured at admission were included. Diagnostic cut-off values followed American Diabetes Association guidelines. Demographic, clinical, and biochemical characteristics, as well as outcomes were compared between groups. Chi-square, Tukey and Kruskall-Wallis analyses were used according to data distribution.

Results: Most patients were male; however, among diabetics, a significantly higher proportion of females were found ($p=0.004$), this group also exhibited significantly higher prevalence of hypertension. Moreover, at admission 18% were unaware of their DM diagnosis. Among non-reperfused patients, non-diabetics significant accounted for the lowest proportion; consequently,

Abstract Body:

they had a higher percentage of successful thrombolysis. STEMI-related complications were similar between groups. Pre-diabetics and diabetics expressed more Hs-troponin levels and had higher in-hospital mortality.

Conclusion: At admission, prediabetic and diabetic patients exhibited higher rates of non-reperfusion and greater cardiac injury, along with a non-

significant increase in in-hospital mortality

Table 1 = 148				
	Non-diabetic group HbA1c ≤ 5.6 %	Pre-diabetic group HbA1c = 5.7 - 6.4	Diabetic group HbA1c ≥ 6.5 %	P
Demographic characteristics	G1 = 46 (%)	G2= 42 (%)	G3= 60 (%)	
Male	40 (87)	35 (83.3)	37 (61.7)	0,004
	X (±SD)	X (±SD)	X (±SD)	
Age (years)	61.2 (±15.8)	60.7 (±11.6)	58.6 (±11.2)	0,545
Medical history	n (%)	n (%)	n (%)	
Hypertension	23 (50)	19 (45.2)	41 (68.3)	0,042
Diabetes Mellitus	-	-	49 (81.7)	-
Dyslipidemia	0 (0)	3 (7.1)	6 (10)	0,097
Tobacco use	21 (45.7)	13 (31)	16 (26.7)	0,11
Previous ACS	2 (4.3)	2 (4.8)	7 (11.7)	0,275
Procedures				0,657
Coronary angioplasty	39 (86.7)	37 (88.1)	52 (86.7)	
Coronary angiography	5 (11.1)	4 (9.5)	8 (13.3)	
Failed coronary angioplasty	1 (2.2)	1 (2.4)	0 (0)	
STEMI patients				
Non-reperfused	6 (13.3)	16 (38.1)	15 (25.4)	0,03
Thrombolysis (yes)	34 (79.1)	22 (59.5)	26 (55.3)	0,047
Successful thrombolysis (yes)	28 (84.4)	17 (81)	19 (73.1)	0,54
Risk scales	X (±SD)	X (±SD)	X (±SD)	
GRACE	125.3 (±39)	123.8 (±41.3)	120 (±32.5)	0,8
Laboratory findings at admission	Median (25-75)	Median (25-75)	Median (25-75)	
Hemoglobin (gr/dL)	14.3 (12.9-16.3)	14.7 (13-15.6)	13.9 (12.3-15.2)	0,3
White count cells (K/uL)	11.7 (8.6-14.8)	11 (7.8-14.4)	10.4 (8.7-14)	0,75
Creatinine (mg/dL)	0.95 (0.78-1.17)	0.98 (0.81-1.23)	1.03 (0.78-1.27)	0,82
High-sensitivity troponins (pg/mL)	1600 (365-28951)	11232 (752-39586)	10354 (627-43302)	0,53
NT-ProBNP (pg/mL)	2929 (959.5-3728)	1645.5 (834.5-11866.5)	546 (259-5480)	0,81
LDL (mg/dL)	121 (97-150.5)	108 (82-164)	98.5 (64.5-121.5)	0,02
Angiographic characteristics	n (%)	n (%)	n (%)	
Total chronic occlusion	3 (12)	5 (17.2)	9 (25)	0,55
No-reflow	1 (3.7)	3 (11.1)	3 (9.1)	0,47
Delays	Median (25-75)	Median (25-75)	Median (25-75)	
First Medical Contact (minutes)	180 (97.5-360)	360 (150-1290)	255 (120-750)	0,036
	X (±SD)	X (±SD)	X (±SD)	
Total Ischemia Time (minutes)	370 (±127.8)	442.6 (±200)	400.9 (±212.8)	0,6
	n (%)	n (%)	n (%)	
STEMI-related complications	11 (47.8)	14 (45.2)	22 (59.2)	0,46
Cardiogenic shock	4 (31)	5 (33.3)	7 (21.8)	
Atrioventricular block	3 (23)	1 (6.7)	6 (18.8)	
Acute heart failure	3 (23)	8 (53.3)	8 (25)	
Ventricular tacharrythmia	-	-	2 (6.3)	
Others	3 (23)	1 (6.7)	9 (28.1)	
In-hospital mortality	1 (2.2)	3 (7.1)	7 (11.9)	0,146

Control Number: 25-CCC-578-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-44
44

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PURULENT PERICARDITIS SECONDARY TO COMMUNITY-ACQUIRED PNEUMONIA AND GASTROPERICARDIAL FISTULA: AN UNUSUAL ASSOCIATION

Author Block: Jose Abraham Luna Herbert, José Alfredo Delgado Cruz, SR, Bernardo Guerrero del Moral, Alberto Isaí Rodríguez Vázquez, Emmanuel Gómez García, Rafael Alan Sandoval Espadas, Fernando Huerta Liceaga, Agustín Armando Ruiz Benítez, Itzel Viridiana Delgado Cruz, Raúl Rodríguez, Luis Raul Cano del Val Meraz, PEMEX, Mexico City, Mexico

Background: A 67-year-old woman with type 2 diabetes and systemic arterial hypertension, with a history of laparoscopic fundoplication for hiatal hernia, required laparoscopic reintervention due to adhesive syndrome.

Case: She initially presented to the emergency department with fever and shock; therefore, norepinephrine infusion and antibiotic therapy were initiated. Thoracic Tomography revealed left basal consolidation, pericardial and left pleural effusion. During hospitalization, she presented clinical and echocardiography signs of cardiac tamponade.

Decision-making: Ultrasound guided pericardiocentesis was performed, draining 120 milliliters of purulent exudate. She was admitted to Intensive Care Unit and treated with continuous pericardial drainage, exploratory laparotomy and endoscopy which demonstrated gastropericardial fistula, loculated left pleural effusion and pleuro-pulmonary adhesions. Fistula resection and gastrectomy were performed (Fig 1). Initial and post-surgical cultures revealed *S. aureus* and *E. faecalis* respectively. After 3 weeks of

Abstract Body:

hospitalization, she presented neurological and hemodynamic deterioration, leading to fatal outcome.

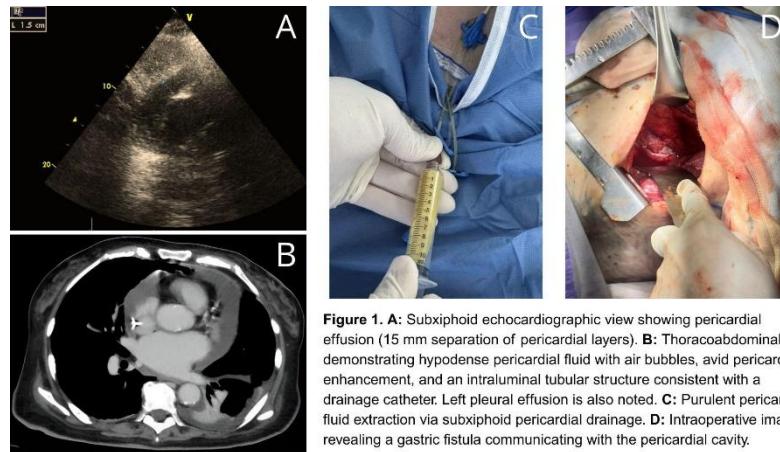


Figure 1. **A:** Subxiphoid echocardiographic view showing pericardial effusion (15 mm separation of pericardial layers). **B:** Thoracoabdominal CT demonstrating hypodense pericardial fluid with air bubbles, avid pericardial enhancement, and an intraluminal tubular structure consistent with a drainage catheter. Left pleural effusion is also noted. **C:** Purulent pericardial fluid extraction via subxiphoid pericardial drainage. **D:** Intraoperative image revealing a gastric fistula communicating with the pericardial cavity.

Conclusion: Purulent pericarditis in the 21st century is rare but carries a mortality rate of 40% even with timely diagnosis and treatment. Maintaining a high index of clinical suspicion in at-risk patients with compatible findings is vital, as well as prompting antibiotic and invasive therapy to improve prognosis.

Control Number: 25-CCC-483-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-45

45

Topic 1: Multimodal Imaging

Publishing Title: MULTIPLE ATRIAL SEPTAL DEFECTS: COMPLETE CHARACTERIZATION THROUGH MULTIMODAL IMAGING

Author Block: Alberto Hernández de la Rosa, Raúl Emmanuel Fonseca Robles, María E. Ruiz Esparza, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico, Universidad del Valle de México, Querétaro, Mexico

Background: Uncorrected congenital heart defects can remain asymptomatic until adulthood. Multimodal imaging enables accurate anatomical and functional characterization.

Case: A 76-year-old woman presented with dyspnea on moderate exertion.

Abstract Body: Transthoracic echocardiogram (TTE) showed right chamber dilation, tricuspid regurgitation (TRV 3.8 m/s), a superior sinus venosus atrial septal defect (>21 mm), and a secundum atrial septal defect (8 mm), with a left-to-right shunt (Qp/Qs 5.1). Transesophageal echocardiogram (TEE) confirmed both defects and revealed anomalous drainage of the right pulmonary veins into the right atrium. Pulmonary magnetic resonance angiography (MRA) demonstrated the anomalous connection of the right superior pulmonary vein to the cavoatrial junction and allowed detailed vascular mapping.

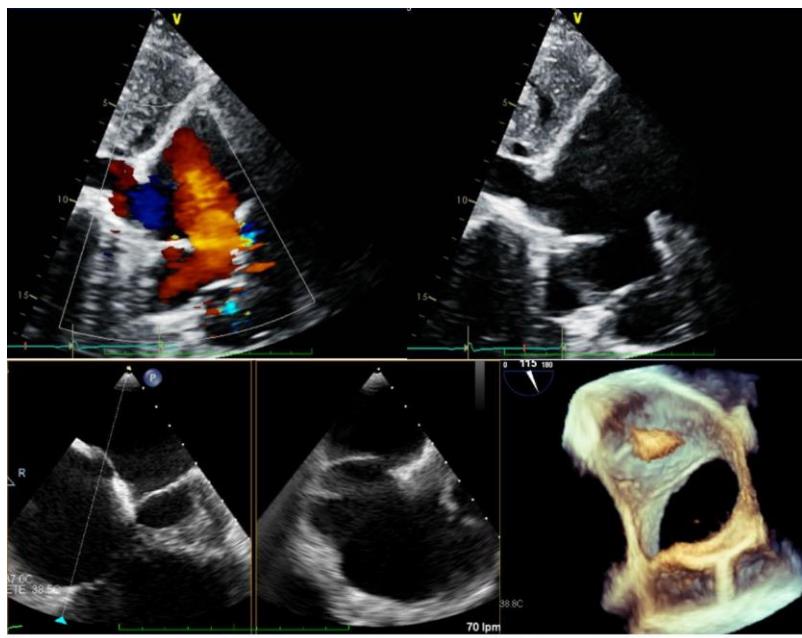


Figure 1. Upper: TTE revealed a sinus venosus atrial septal defect (ASD) with colour Doppler flow with left to right shunt. Lower: TEE with a second atrial septal defect (Ostium secundum) and 3D reconstruction of the sinus venosus ASD.

Decision-making: TTE suggested an intracardiac shunt and estimated the pressure gradient. TEE defined the anatomy of the septal defects and pulmonary venous return. MRA confirmed the anomalous drainage and provided comprehensive vascular characterization, contributing key information for diagnosis and management.

Conclusion: Multimodal imaging enables precise characterization of multiple atrial septal defects, which are not common and can be easily missed, this approach enables the best treatment course.

Control Number: 25-CCC-486-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-46
46

Topic 1: Multimodal Imaging

Publishing Title: THROMBOSIS OF THE ATRIAL SEPTAL OCCLUDER DEVICE SECONDARY TO UNCONVENTIONAL ANTIPHOSPHOLIPID ANTIBODIES

Author Block: Adriana Miguel, Dalia Carbajal, Angélica Vargas Guerrero, Eduardo Hernández Rangel, Stephanie Angulo, Edgar García Cruz, INSTITUTO NACIONAL DE CARDIOLOGIA IGNACIO CHAVEZ, CDMX, Mexico

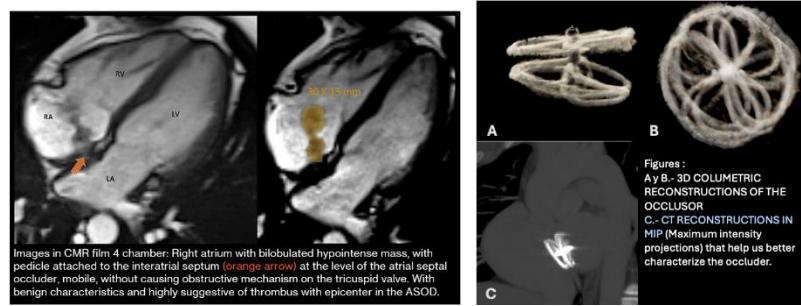
Background: Thrombosis of atrial septal occluder device (ASOD) is rare. In our knowledge no cases are reported in association with antiphospholipid antibodies (aPL).

Case: 6-year-old woman, presented pericardial effusion, malar erythema, livedo racemosus, fine speckled pattern antinuclear antibodies 1:320, anticardiolipin (aCL) IgG 32U/L, 2 qualitative positive aCL IgM and 1 lupus anticoagulant. Foramen ovale NYHA I was detected. Antiphospholipid syndrome (APS) was suspected. At 20 years, presented functional impairment due to foramen ovale, interventional closure was performed with GORE Cardioform ASOD 30mm. 3 months later, 2 thrombi (1 attached to the distal portion of the ASOD without residual shunt and another very mobile) were identified. It was decided to differ thrombectomy and maintain anticoagulation with unfractionated heparin 2 weeks, due to suspected APS, endocarditis was discarded. Three weeks later, thrombus size was decreased. Negative criterial aPL were reported, persistent prolonged aPTT and other thrombophilias were discarded; 2 positive antiprothrombin IgM with 12 weeks apart [10.6 and 11.1 U/mL].

Decision-making: ASOD thrombosis was demonstrated 3 months after

implantation, despite acetylsalicylic acid. APS was not confirmed in childhood, however, with intracavitary thrombosis and positive antiprothrombin IgM, seronegative APS was concluded.

Conclusion: APS should be suspected in a young patients with ASOD thrombosis.



Control Number: 25-CCC-507-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-47
47

Topic 1: Multimodal Imaging

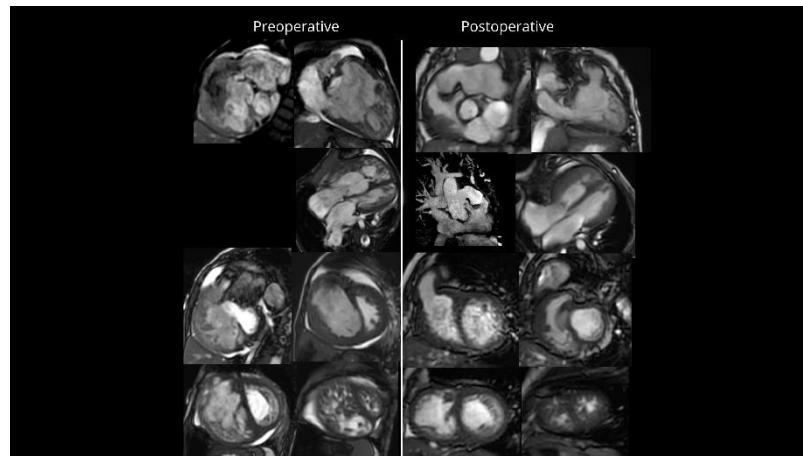
Publishing Title: CARDIAC MAGNETIC RESONANCE FOR DECISION MAKING IN TETRALOGY OF FALLOT WITH ABSENT PULMONARY VALVE AND SEVERE RIGHT HEART FAILURE

Author Karina Coronado Centeno, Melissa Alejandra Gastelum Bernal, Fernando Estrada Hernández, Andres Gonzalez Ortiz, Hector Diliz Nava, Carlos Corona Villalobos, Alexis Palacios Macedo, Jorge Alberto Silva Estrada, Instituto Nacional de Pediatría, Ciudad de México, Mexico

Background: A 2 year old boy with late referral of Tetralogy of Fallot (TOF) and severely reduced right ventricular ejection fraction (RVEF).
Case: Male patient referred with a diagnosis of TOF with absent pulmonary valve (APV). Initial echocardiogram showed severe right ventricle (RV) dilation and systolic dysfunction. Cardiac magnetic resonance (CMR) confirmed these findings (RVEF 23%, right to left ventricle volume ratio 2.5:1.0). A one and a half ventricle repair was performed, with a good postoperative course. Two years later there was evidence of upper venous congestion. Control CMR revealed normalized volumes and preserved biventricular systolic function (RVEF 60%, volume ratio 1.25:1), along with a low-output cavopulmonary shunt and multiple veno-venous collaterals. These findings supported the decision of dismantling the cavopulmonary connection.
Decision-making: Oftentimes, TOF with APV presents with severe RV systolic dysfunction, especially in late referrals. One and a half ventricle repair is usually indicated for hypoplastic and dilated RVs; however, cutoff

values are not validated. CMR enables detailed evaluation of pre-and post-operative stages, helping guide decision making to improve outcomes.

Conclusion: Cardiac CMR is vital for RV assessment in complex congenital heart disease, both for surgical planning and follow-up. Conventional cine sequences, phase contrast flow measurement, and time-resolved angiography must be included in such algorithms.



Control Number: 25-CCC-515-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-48
48

Topic 1: Multimodal Imaging

Publishing Title: PULMONARY VEIN STENOSIS

Author Block: Joyne Peralta, Jhan Gonzalez, CEDIMAT, santo domingo, Dominican Republic

Background: A 59-year-old male patient with a medical history of hypertension, hyperthyroidism, recurrent AF, who has undergone radiofrequency ablation on three occasions and electrical cardioversion on four occasions, came to the department of Pulmonary care due to dyspnea on moderate exertion that began insidiously, and a cough that he reported was occasional.

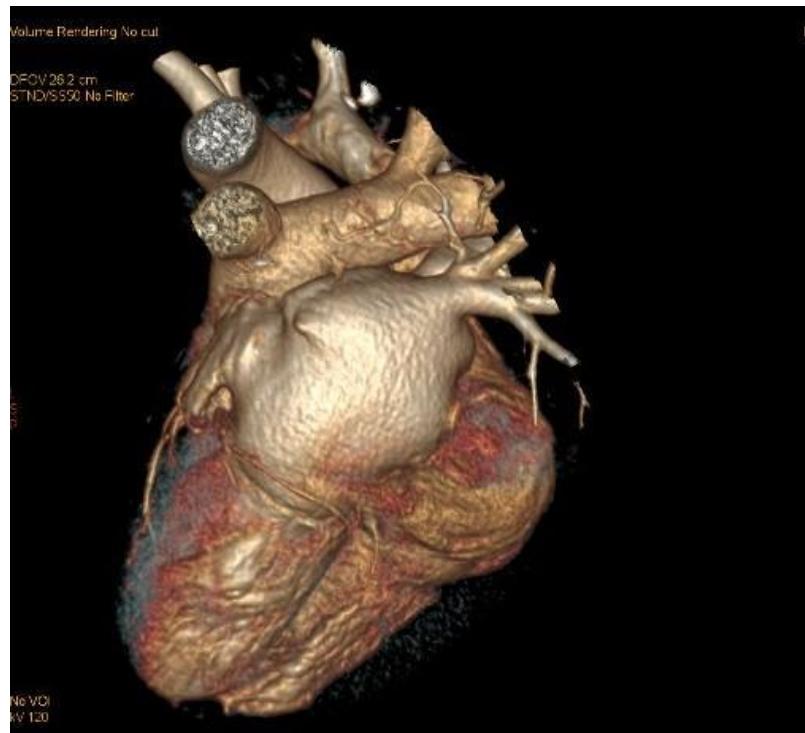
Case: Relevant medical history included use of medication, propafenone 150 mg every 12 hours (he used amiodarone for seven years), unspecified analgesics, denied drug habits, nonsmoker, worked as an industrial mechanic (no exposure to asbestos), and 30 years of experience working with fibers (fabric, threads).

Decision-making: Blood test were normal, and a complete pulmonary function test was performed, which was within normal parameters. The TLC and DLCO were normal. A bronchoscopy was performed in previous admissions, which ruled out amiodarone-related lung disease. The team request a chest CT angiogram that revealed focal fibrosis in the lower lobe of the left lung, reticulations, and traction bronchiectasis.

Conclusion: A CT angiogram reconstruction was requested, which revealed a stump in the area where the pulmonary veins should be, secondary to

Abstract Body:

ablation (Pulmonary vein stenosis).



Control Number: 25-CCC-533-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-49
49

Topic 1: Multimodal Imaging

Publishing Title: THE UNEXPECTED TUMOR: ISOLATED RIGHT VENTRICULAR RHABDOMYOMA IN AN ELDERLY PATIENT

Author Block: Bryan David Hernandez Nieto, Riguey Cecilia Mercado Marchena, Zenen Rua, Carlos Renowitzky, Epitacio Rafael Mestre Sequeda, Juan Villa-Villa, Luis Guillermo Garcia Chamorro, Edgar Martínez-Gómez, Manuel Urina-Triana, Miguel A. Urina-Triana, Faculty of Health Sciences, Simón Bolívar University, Barranquilla, Colombia, Department of Cardiology, Clínica Centro SA, Barranquilla, Colombia

Background: Cardiac rhabdomyomas (CR) are the most common benign cardiac tumors in children, but their occurrence in individuals over 65 years old is extremely rare. We report a unique case of CR in a 75-year-old man, challenging established epidemiological paradigms.

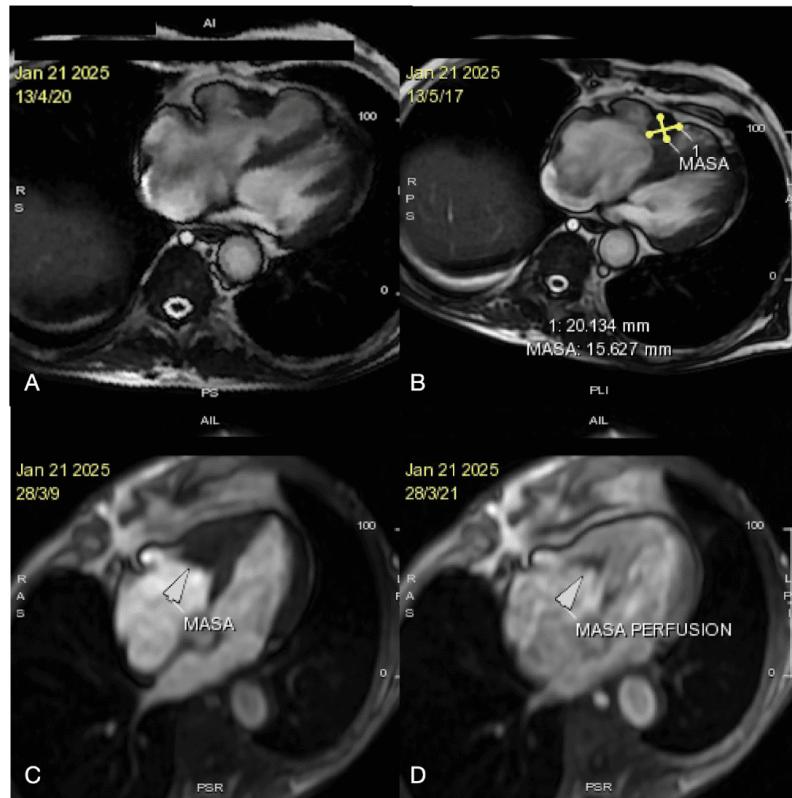
Case: A 75-year-old man with recently diagnosed hypertension presented with an 8-month history of intermittent chest discomfort and progressive exertional dyspnea. Examination revealed signs of right heart failure. BNP was elevated (552 pg/mL). Transthoracic echocardiography showed a mass in the right ventricular (RV) free wall and right chamber dilation. Cardiac MRI identified a 20×15×19 mm RV mass with wide-based attachment, low mobility, regular surface, and no fat infiltration or late enhancement, suggesting a rhabdomyoma. Extracardiac CT ruled out tuberous sclerosis and other neoplasms.

Decision-making: This case is notable for its occurrence in an elderly adult without tuberous sclerosis and for its RV location. Conservative

Abstract Body:

management was chosen due to high surgical risk. mTOR inhibitors, effective in pediatric cases, may offer a novel treatment approach in elderly patients, although data are limited.

Conclusion: Multimodal imaging enabled accurate diagnosis of an isolated right ventricular rhabdomyoma in an elderly patient. mTOR inhibitors could represent a future therapeutic option in high-risk surgical candidates.



Cardiac MRI images in a four-chamber view demonstrate a mass measuring 20 mm \times 15 mm, with a broad-based attachment to the inferior and free wall of the right ventricle (Panels A and B). The lesion has a regular surface and homogeneous appearance. It is isointense on both black-blood and white-blood sequences, with perfusion characteristics similar to the surrounding myocardium, except for a peripheral perfusion defect (Panels C and D), suggestive of a rhabdomyoma.

Control Number: 25-CCC-536-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-50

50

Topic 1: Multimodal Imaging

Publishing Title: BRINGING ANATOMY TO LIFE: A 3D BASED APPROACH TO COARCTATION OF THE AORTA

Author Block: Maria Fernanda Reyes, Daniel Alejandro Obeso León, Alejandro Godinez, Juan Angel Santos Marquez, Rodrigo Pille, José Arturo Covarrubias, Daniela Guadalupe Tapia Chaidez, Gerardo Sela Bayardo, Fernando Mendoza Cuadra, Universidad Autónoma de Baja California, Tijuana, Mexico, Nucleo Diagnostico Avanzado, Tijuana, Mexico

Background: Coarctation of the aorta (CoA) and subvalvular aortic stenosis (SAS) account for 6.5% and 5-8% of all congenital heart defects, respectively. Three-dimensional printing is an emerging technology that creates precise physical models from advanced imaging modalities, offering valuable anatomical insights.

Case: A 45-year-old male with a 25-year history of poorly controlled hypertension and SAS was referred to cardiology following an ischemic stroke. Electrocardiogram suggested left ventricular hypertrophy. On physical examination, systolic murmur was heard at the aortic area, radiating to the suprasternal notch. The patient also reported exertional dyspnea.

Decision-making: X-Ray as a first line imaging study showed coincident signs of CoA. A confirmatory computed tomography angiography (CTA) and cardiac catheterization were performed and revealed the anomaly and an elevated transaortic gradient of 32 mmHg. The CTA was obtained to better define the anatomy of the lesion and associated vascular structures. In case

of further pre-intervention planning, a 3D-printed aortic model was created, which clearly demonstrated the site and extent of the CoA.

Conclusion: Using interactive 3D models for pre-operative planning can greatly enhance and streamline complex transcatheter or hybrid procedures by providing a detailed understanding of the unique anatomy of the patient.

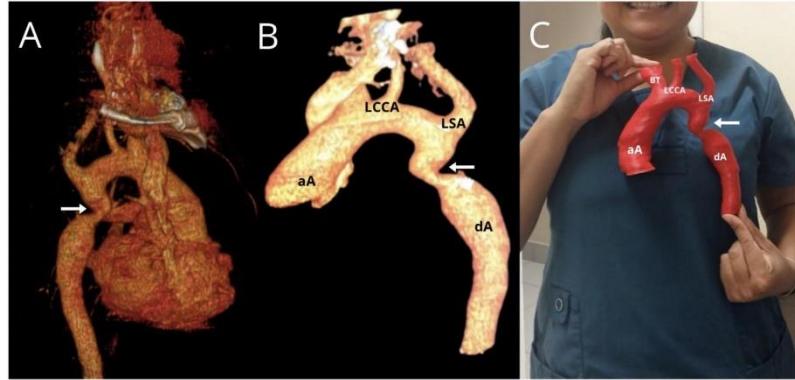


Fig. 1. 3D reconstructed CT angiography of the aortic arch showing focal narrowing (arrow) of the descending thoracic aorta, located approximately 15 mm distal to the origin of the left subclavian artery in a posterior view (A) and anterior view (B) (C). (C) 3D-printed aortic arch reconstruction model. Ascending Aorta (aA), Left Common Carotid Artery (LCCA) Brachiocephalic Trunk (BT), Left Subclavian Artery (LSA), Descending Aorta (dA).

Control Number: 25-CCC-544-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-51

51

Topic 1: Multimodal Imaging

Publishing Title: RUPTURED SINUS OF VALSALVA ANEURYSM AS A CAUSE OF ACUTE HEART FAILURE IN A YOUNG ADULT

Author Block: Diego Aguilar Romero, Maria Guadalupe Suárez Peñaloza, Marcela Molinar Lechuga, Nestor A. Parra Ordoñez, Eva Palacios, Omar Carrasco Macías, Unidad Médica de Alta Especialidad de Cardiología 34, Monterrey, Nuevo León, Mexico

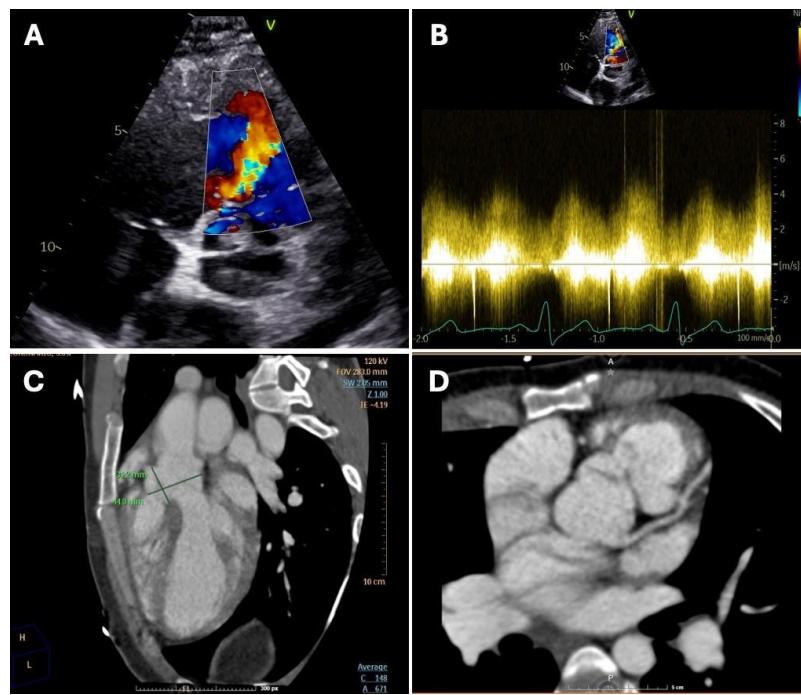
Background: Sinus of Valsalva aneurysm (SOVA) is a rare anomaly. SOVA encompasses up to 3.5% of congenital heart disease, and its rupture is associated with high mortality.

Case: A 28-year-old male, without medical history, debuted with dyspnea at rest. Initial assessment exposed sinus tachycardia, blood pressure 144/64 mmHg, examination revealed IV/VI continuous murmur at sternal left border and lower limb edema. Transthoracic echocardiography (TTE) unveiled SOVA ruptured into the right ventricle. Initially, diuretic managed symptoms, cardiac CT was ordered as a complement in preparation for surgical repair, which was performed successfully without complications. 3 months later, follow up consult reported subsequent TTE with trivial leak, asymptomatic.

Decision-making: Patients with heart failure symptoms should include TTE as initial evaluation. Although SOVA is unusual, it's not always diagnosed initially. Therefore, multimodal imaging is usually required, such as transesophageal echocardiogram, cardiac CT or cardiac MRI. Even though transcatheter closure is a safe and successful option, our center lacks experience, hence we opted for a surgical closure with a positive outcome.

Abstract Body:

Conclusion: Despite being uncommon, SOVA rupture must be suspected in young adults with either chronic or acute heart failure symptoms, and it is advised to complement with multimodal imaging. Management should be discussed by a Heart Team based on the patient characteristics and the center's experience.



Control Number: 25-CCC-548-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-52

52

Topic 1: Multimodal Imaging

Publishing Title: ANOMALOUS INFERIOR CAVA DRAINAGE IN LEFT ATRIUM: THE ROLE OF MULTIMODALITY ASSESSMENT

Author Block: Diego Rangel, Gustavo Lemus, Juan Felipe Vasquez, Alejandro Herrera, carlos Guerrero, Gabriel Salazar, Fundación Cardioinfantil, Bogotá, Colombia

Background: Venous drainage from the inferior vena cava (IVC) to the left atrium (LA) is a very rare defect associated with cyanosis in adults. It may correspond to congenital pathology or be secondary to repair of cardiac problems, including atrial septal defects (ASD).

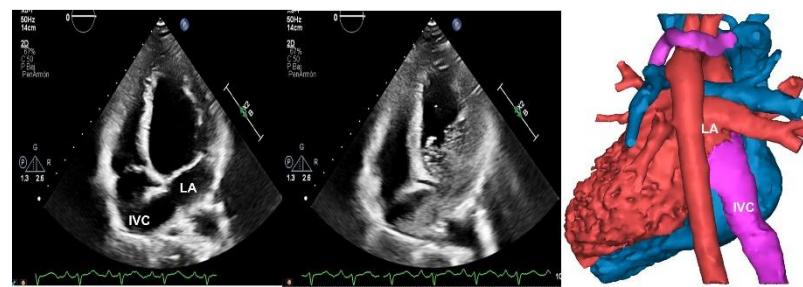
Case: A 26-year-old male presented to the emergency department for 6 months of exertional dyspnea and cyanosis. He had a history of surgical correction of ASD and anomalous venous drainage when he was 1 month old. A transthoracic echocardiogram showed a connection of the IVC with the LA, with significant passage of contrast with bubbles (image 1). 3D reconstruction from cardiac magnetic resonance (CMR) confirmed these findings and showed pulmonary venous drainage with correct connection.

Decision-making: This type of anomalous cardiac connection has been related to the correction of inferior venous sinus ASD because the Eustachian valve may be confused with the inferior border of the ASD at the time of closure, favoring flow into the LA. Surgical treatment was proposed, but the patient did not accept this option.

Conclusion: The use of multimodal assessment allows adequate characterization of rare abnormal cardiac connections, even in adult

Abstract Body:

patients.



Control Number: 25-CCC-549-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-53

53

Topic 1: Multimodal Imaging

Publishing Title: LOOKING BEYOND ISCHEMIA: LEFT VENTRICULAR HYDATID CYST PRESENTING WITH ANGINA

Author Block: Andres Chaponan-Lavalle, Cherie Quiroz Cortegana, Jorge Alave, Nelson Diaz, Clínica Good Hope, Lima, Peru

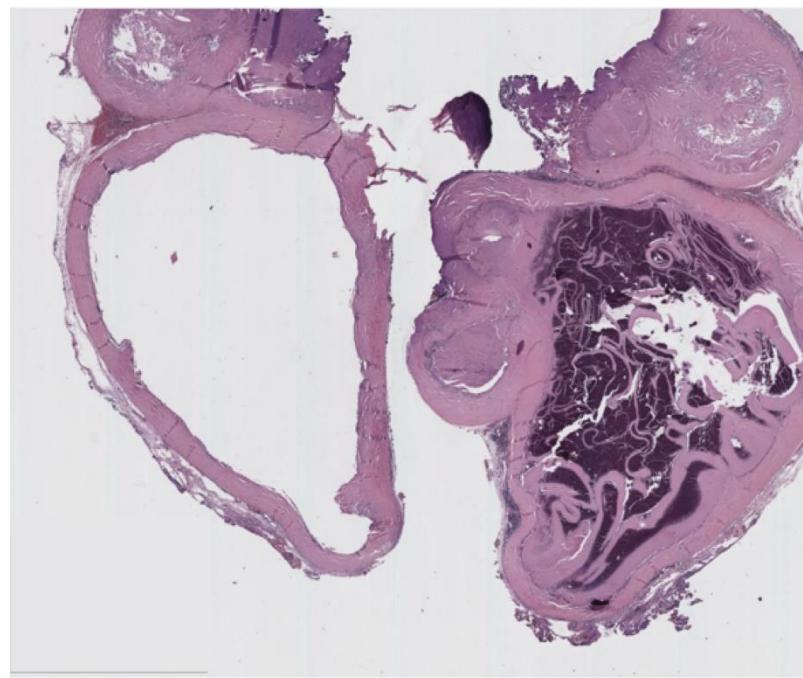
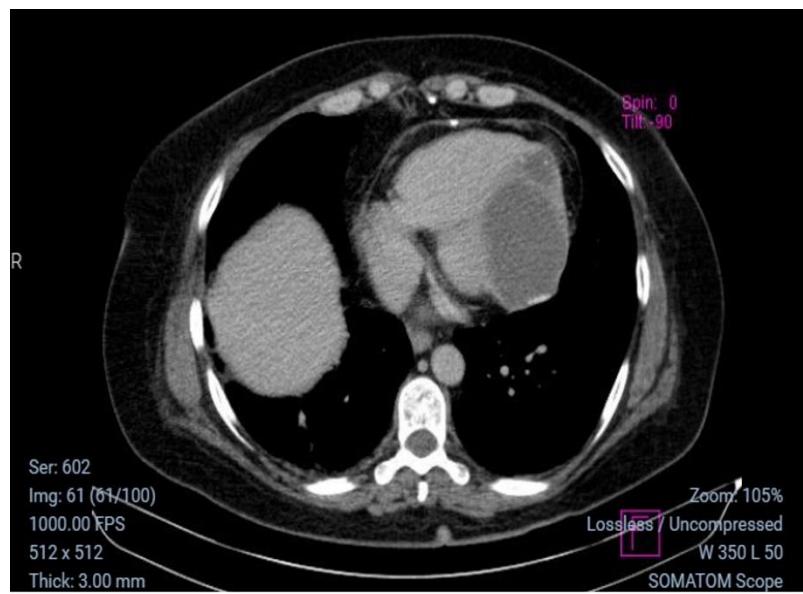
Background: Cardiac hydatid cysts are rare, representing 0.5-2% of all hydatid cases.

Case: A 44-year-old woman with prior pulmonary hydatidosis presented with 6 months of exertional chest pain. ECG showed T-wave inversions and incomplete right bundle branch block. Labs were normal. CT showed a 95×47×68 mm multiloculated cystic mass with peripheral calcifications in

Abstract Body: the left ventricle (Figure 1). Cardiac catheterization ruled out coronary artery disease. Patient underwent surgical resection and received albendazole (Figure 2).

Decision-making: Cardiac hydatidosis may mimic coronary disease. CT is key for diagnosis, while serology may have limited sensitivity. Surgery plus antiparasitic therapy is standard.

Conclusion: Consider cardiac hydatid cyst in chest pain from endemic areas.



Control Number: 25-CCC-883-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-54

54

Topic 1: Multimodal Imaging

Publishing Title: BETWEEN HEARTBEATS AND SHADOWS: APPROACH TO A MASS IN THE LEFT ATRIUM THROUGH A MULTIMODAL PERSPECTIVE IN MIDDLE INCOME COUNTRIES

Author Block: José Abel Camilo Figueroa, Carolina Tejada, Maria Lopez, Yomary Campos, Christopher Manuel Lopez, Henry Lisander Frias Pichardo, milton cruz tejada, Christopher Luna Estrella, daniel Alejandro Rivera, Clinica Universitaria Unión Médica del Norte, Santiago de los Caballeros, Dominican Republic

Background: A myxoma is the most frequent primary benign tumor of the heart and commonly originating in the left atrium. Due to their variable appearance identifying intracardiac masses remains a diagnostic challenge.

Case: A 58-year-old woman presented with symptoms including headache, dizziness and left upper limb monoparesis. On cardiovascular examination a widely split first heart sound and a mid-diastolic murmur at the mitral area were noted with changes upon positional maneuvers. Brain MRI revealed acute bilateral ischemic lesions suggesting an embolic source.

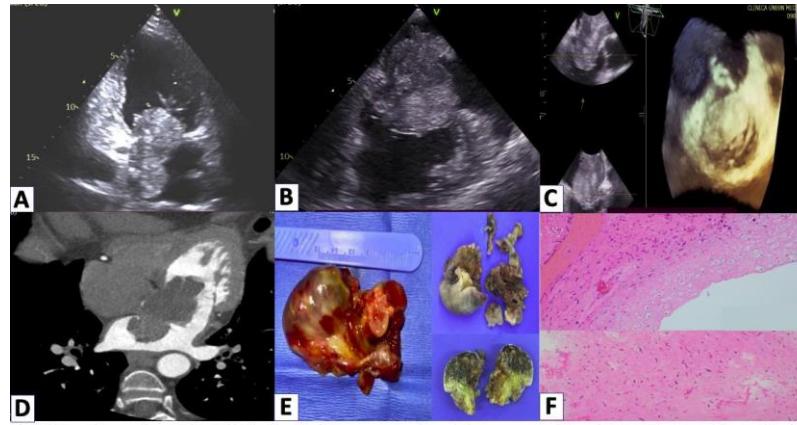
Transthoracic echocardiography (TTE) identified a heterogeneous and round mass within the left atrium causing moderate to severe dynamic mitral stenosis (Image A).

Decision-making: Transesophageal echocardiography (TEE) and 3D TEE confirmed a pedunculated mass attached to the interatrial septum at the fossa ovalis, measuring $6.3 \times 6.5 \times 3.5$ cm (Images B and C). Cardiac CT angiography revealed a bilobed, mobile mass with irregular borders,

Abstract Body:

protruding through the mitral valve into the left ventricular inflow tract during diastole (Image D). Surgical resection of the mass was performed (Image E), and histopathological analysis confirmed the diagnosis of a myxoma (Image F).

Conclusion: Early recognition of cardiac myxomas in patients with unexplained cardiac or embolic symptoms is crucial. Prompt surgical removal is essential to avoid potentially fatal complications.



A. ETT intracavitory cardiac mass located in the LA with a heterogeneous and rounded appearance pedicle anchorage at the interatrial septum level, mobile with prolapse and close relationship with the mitral valve. B. TEE mass that appeared to be attached to the interatrial septum at the fossa ovalis level by means of a pedicle with dimension of 6.3 cm x 6.5 cm x 3.5 cm. C. ETT 3D. D. AngioCT mass with irregular edges, two lobes and mobile with diastolic protrusion into the left ventricular inlet tract through the mitral valve. E. Removed Macroscopic mass. F. Histopathological compatible with myxoma.

Control Number: 25-CCC-443-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-55

55

Topic 1: Valvular Diseases

Publishing Title: TRANSCATHETER VALVE-IN-VALVE REPLACEMENT FOR PULMONARY BIOPROSTHETIC DYSFUNCTION

Author Block: Nicolas Rodriguez Medina, Fernan Mendoza Beltran, Edgar Hurtado Ordoñez, Angela Roa Bocanegra, Mauricio Manrique, Juan Samuel Hernandez, Fundación Clínica Shaio, Bogota, Colombia, Pontificia Universidad Javeriana, Colombia

Background: Transposition of the great arteries is a complex congenital cardiac anomaly typically corrected in infancy via the arterial switch operation. Long-term complications may include right ventricular (RV) outflow tract obstruction and bioprosthetic pulmonary valve degeneration, leading to severe pulmonary regurgitation and RV dysfunction.

Transcatheter pulmonary valve-in-valve (ViV) implantation has emerged as a less invasive alternative to surgical reintervention, with favorable outcomes.

Abstract Body: **Case:** A 21-year-old woman with dextro-transposition of the great arteries underwent Jatene repair at 1 month of age. She later developed subvalvular pulmonary stenosis due to RV hypertrophy, requiring pulmonary valve replacement with a bioprosthetic valve in 2023. Warfarin was given for 3 months, followed by aspirin. In 2025, she presented with retrosternal chest pain and progressive dyspnea. Examination revealed jugular venous distension, peripheral edema, and a high-pitched early diastolic murmur at the left upper sternal border. ECG showed RV hypertrophy; NT-proBNP was 1645 pg/mL. Transthoracic echocardiography demonstrated restricted leaflet mobility and severe pulmonary regurgitation

Decision-making: Transesophageal echocardiography confirmed severe regurgitation with eccentric jet and incomplete diastolic coaptation. Doppler showed acceleration time 88 ms, EROA 0.5 cm^2 , peak velocity 3.16 m/s, peak gradient 40 mmHg, mean gradient 24 mmHg. A multidisciplinary team selected transcatheter ViV therapy using a balloon-expandable SAPIEN 3 valve. Postprocedural angiography showed RV ejection fraction 55%, with no residual regurgitation. Follow-up TTE showed optimal valve function with a mean gradient of 2 mmHg and no paravalvular leak. Given the suspicion of subclinical thrombosis of the initial bioprosthetic, indefinite anticoagulation with warfarin was prescribed.

Conclusion: Percutaneous pulmonary ViV implantation represents a minimally invasive, established alternative to surgical reintervention for bioprosthetic valve dysfunction. In this case, ViV implantation resulted in prompt clinical and hemodynamic improvement, enabling early discharge.

Control Number: 25-A-462-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-56

56

Topic 1: Valvular Diseases

Publishing Title: TRANSCATHETER EDGE-TO-EDGE MITRAL VALVE REPAIR VERSUS GUIDELINE DIRECT MEDICAL THERAPY: AN UPDATED META-ANALYSIS.

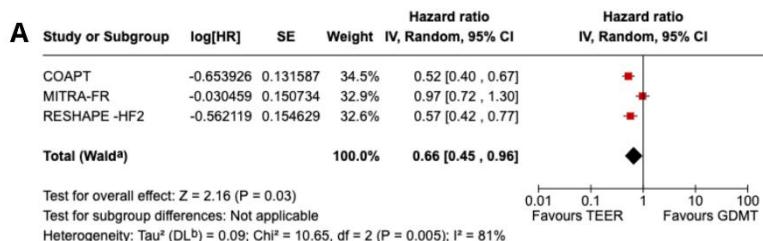
Author Block: Daniel Paulino González, Miguel Angel Pardiño-Vega, Arantza Lizbeth García-Loera, Karoly Pamela Zuñiga-Montaño, Daniel Alejandro Navarro-Martinez, Universidad Autónoma Metropolitana-Xochimilco, Mexico city, Mexico

Background: In patients with mitral regurgitation (MR), valve replacement surgery is a guideline-recommended option; however, on many occasions, this option is not feasible. In such cases, mitral edge-to-edge repair (M-TEER) is a potential alternative. Nevertheless, the results of a randomized clinical trial evaluating this procedure versus guideline-directed medical therapy (GDMT) have been inconsistent.

Methods: A meta-analysis was conducted following PRISMA guidelines, with a protocol registered in PROSPERO. We searched studies from PubMed, Embase, and Cochrane until February 2025. Inclusion criteria were: 1) patients with secondary mitral regurgitation, 2) intervention: M-TEER plus GDMT; 3) comparator: GDMT alone.

Results: Three randomized clinical trials met the inclusion criteria, including 1,423 patients- 704 received M-TEER and 719 received GDMT alone. M-TEER was associated with a reduced risk of hospitalization due heart failure with an HR of 0.66 (95% CI 0.45-0.96 p= 0.03 I² = 81%). In an exploratory analysis M-TEER was also associated with a reduced risk of all-casue mortality (HR: 0.66 (95% CI: 0.53-0.83, p = 0.0003 I² = 0%) and cardiovascular death (HR: 0.68 (95% CI: 0.49-0.96, p = 0.03 I² = 42%).

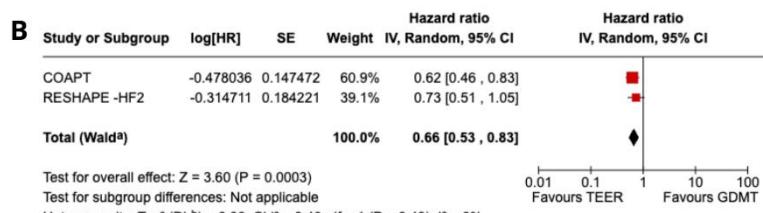
Conclusion: In the present meta-analysis, M-TEER is associated with a reduced risk of adverse outcomes. This benefit appears to be more evident in a selected group of patients in whom MR is the primary driver of heart failure and contributes to additional clinical complications.



Footnotes

^aCI calculated by Wald-type method.

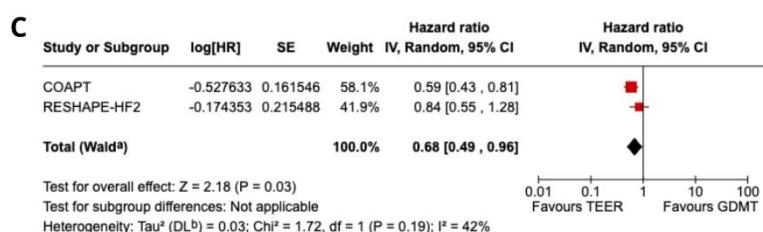
^b τ^2 calculated by DerSimonian and Laird method.



Footnotes

^aCI calculated by Wald-type method.

^b τ^2 calculated by DerSimonian and Laird method.



Footnotes

^aCI calculated by Wald-type method.

^b τ^2 calculated by DerSimonian and Laird method.

Control Number: 25-CCC-468-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-57

57

Topic 1: Valvular Diseases

Publishing Title: FROM PATENT DUCTUS ARTERIOSUS TO INFECTIOUS PULMONARY ENDARTERITIS: A CLINICAL CASE HIGHLIGHTING RARE COMORBIDITIES

Jesus Emilio Berumen Barreto, Gabriela Paola Alanis Estrada, Diego Araiza Garaygordobil, National Institute of Cardiology “Ignacio Chávez”, Mexico City, Mexico, Autonomous University of Queretaro, School of Medicine, Queretaro, Mexico

Background: Although patent ductus arteriosus (PDA) is often asymptomatic in adults, carries a risk for complications, including endarteritis, which rarely affects multiple vascular sites.

Case: A 39-year-old woman with a known childhood history of asymptomatic PDA presented with fever following dental procedures. Over several days, she developed progressive dyspnea, orthopnea, paroxysmal nocturnal dyspnea, and bilateral lower extremity edema. Blood cultures grew *Streptococcus oralis*. Transthoracic echocardiography revealed large mobile vegetations on the aortic valve with severe aortic regurgitation, signs of pulmonary endarteritis, and a 1.1 cm PDA with left-to-right shunt.

Decision-making: The patient underwent aortic valve replacement with a mechanical prosthesis, closure of the PDA, and aortic root enlargement. Intravenous penicillin was administered with good clinical response. Inflammatory markers decreased, and follow-up echocardiography confirmed resolution of vegetations. This case highlights the risk of life-threatening endovascular infections even in silent PDA. Although current guidelines do not universally recommend closure of asymptomatic PDA, this

Abstract Body:

case supports a more proactive approach in selected patients.

Conclusion: Multisite endovascular infection involving the aortic valve and pulmonary artery is a rare but severe complication of PDA. Prophylactic closure may be considered even in silent cases to prevent further complications.

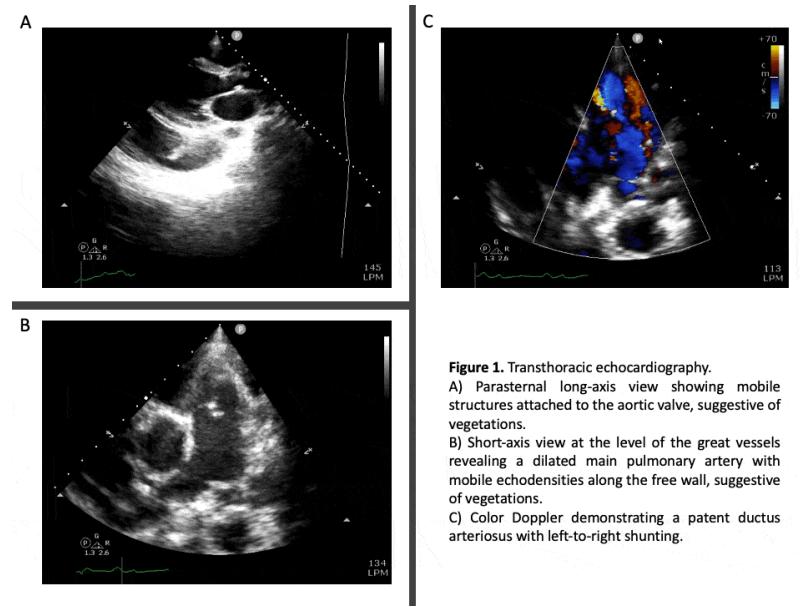


Figure 1. Transthoracic echocardiography.

- A) Parasternal long-axis view showing mobile structures attached to the aortic valve, suggestive of vegetations.
- B) Short-axis view at the level of the great vessels revealing a dilated main pulmonary artery with mobile echodensities along the free wall, suggestive of vegetations.
- C) Color Doppler demonstrating a patent ductus arteriosus with left-to-right shunting.

Control Number: 25-CCC-487-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-58
58

Topic 1: Valvular Diseases

Publishing Title: CORONARY ARTERY FISTULA DRAINING INTO THE LEFT ATRIUM IN A PATIENT WITH DOUBLE PROSTHETIC VALVE DYSFUNCTION: A CASE REPORT

Author Block: Jose Raul Nieto-Saucedo, Larissa Minero-Garcia, Alejandro Sierra-Gonzalez de Cossio, Fabian Guerrero-Briceño, Laura Victoria Torres-Araujo, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

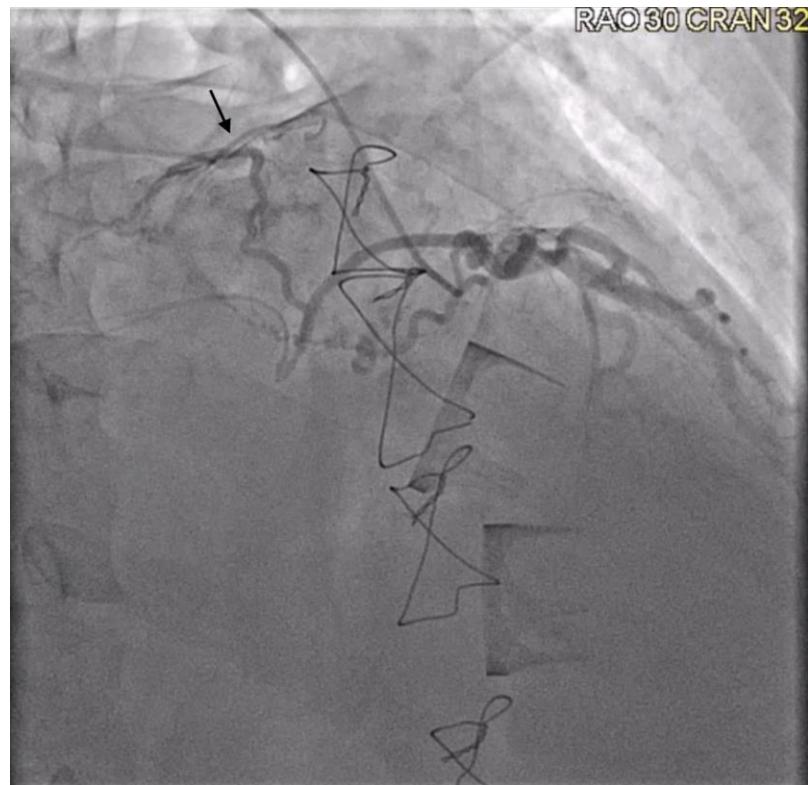
Background: Coronary artery fistulas (CAFs) are rare anomalies (0.2-0.4% in angiographic studies). Drainage into left-sided chambers is extremely rare (10% of cameral fistulas). While often asymptomatic, CAFs may cause hemodynamic disturbances.

Case: A 48-year-old man with history of rheumatic heart disease, bioprosthetic mitral and tricuspid valves (implanted 14 years prior), atrial fibrillation, and lost to follow-up during the COVID-19 pandemic, presented with NYHA class III dyspnea. Physical exam showed a diastolic mitral murmur, holosystolic tricuspid murmur, pulmonary crackles and peripheral edema. Diuretics were titrated to euolemia. Echocardiography showed right chamber and left atrial (LA) dilation, left ventricular hypertrophy with preserved ejection fraction, and dysfunction of both prosthetic valves due to severe mitral stenosis and severe tricuspid stenosis and regurgitation. Angiography revealed a fistula from the circumflex artery's LA branch draining into the left atrium (Figure 1). This vessel was visible on CT angiography 5 years prior. No angina or coronary steal was present.

Decision-making: An incidental LA-CAF was identified during preoperative

assessment. Given the lack of anginal symptoms and minimal hemodynamic burden, conservative management was chosen during prosthesis replacement.

Conclusion: The long-term impact of CAFs remains unclear; management decisions should be individualized based on symptoms, shunt burden, and the risk of complications.



Control Number: 25-CCC-494-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-59

59

Topic 1: Valvular Diseases

Publishing Title: A NEW FRONTIER: SUCCESSFUL TAVR FOR NATIVE AORTIC REGURGITATION WITH REDUCED EJECTION FRACTION

Christian O. Camacho Ramirez, Robert Rodriguez, Jean Carlos Ramirez

Author Block: Feliciano, Daniella Perez-Garcia, Edgardo Bermudez, Centro Medico Episcopal San Lucas, Ponce, PR, USA

Background: TAVR is established for severe aortic stenosis, but its use in native aortic regurgitation (AR) remains off-label. In high-risk patients with contraindications to surgery, transcatheter approaches may offer a viable alternative.

Case: An 84-year-old female with hypertension, COPD, abdominal aortic aneurysm repair, coronary artery disease with prior DES, and pacemaker implantation presented with epigastric discomfort, palpitations, and exertional dyspnea. Vital signs were stable. EKG showed ventricular-paced rhythm. Troponin was mildly elevated (40.43 ng/L), leading to NSTEMI

Abstract Body: diagnosis. Coronary angiography showed patent stents and no new obstructive disease. Ventriculography revealed an EF of 30% and significant AR. Echocardiography confirmed EF <25% and severe AR without stenosis. Cardiothoracic surgery deemed her prohibitive surgical risk. After multidisciplinary discussion, off-label TAVR was performed successfully. Post-procedure echocardiogram showed a well-seated valve with only trace regurgitation. She was initiated on guideline-directed heart failure therapy.

Decision-making: Managing severe AR with TAVR remains challenging due to lack of annular calcification, valve anchoring issues, and increased embolization risk. However, in selected frail patients, off-label TAVR can

restore valve function and improve quality of life. Patient-centered decision-making and interdisciplinary collaboration are critical for success.

Conclusion: Off-label TAVR offers a promising alternative to surgical valve replacement in prohibitive-risk patients with severe native AR, demonstrating significant functional improvement and symptom relief.

Control Number: 25-A-501-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-60
60

Topic 1: Valvular Diseases

Publishing Title: IMPACT OF TRANSCATHETER TRICUSPID VALVE REPLACEMENT ON TRICUSPID REGURGITATION SEVERITY AND ADVERSE OUTCOMES: A META-ANALYSIS.

Author Block: Daniel Paulino González, Miguel Angel Pardiño-Vega, Lissete Garcia-Mena, Daniel Navarro-Martinez, Victor Anghelo Mañuico-Antay, Alejandro Gasca-Insuasti, Alin Lizet Romero-Rodríguez, Universidad Autónoma Metropolitana-Xochimilco, Mexico city, Mexico

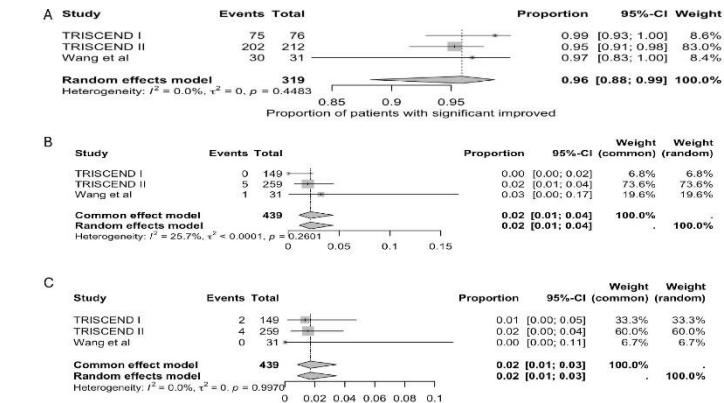
Background: Tricuspid regurgitation (TR) is a valvular disease associated with reduced quality of life and increased mortality risk. Valve replacement surgery is a guideline-recommended treatment; however, it is often not feasible. In such cases, transcatheter tricuspid valve replacement (TTVR) may represent a viable alternative. Nevertheless, the effectiveness and safety of this intervention remain unclear.

Methods: A meta-analysis was conducted in accordance with PRISMA guidelines, with a protocol registered in PROSPERO. We systematically searched PubMed, Embase, and Cochrane databases up to February 2025. Inclusion criteria were: 1) patients with TR; 2) intervention: TTVR plus guideline-directed medical therapy (GDMT); and 3) comparator: GDMT alone.

Results: Three studies met the inclusion criteria: two randomized controlled trials and one observational study, comprising a total of 1,330 patients—656 received TTVR and 190 received GDMT alone. The pooled proportion of patients with improvement in TR severity was 95.9% (95% CI: 88.2%-98.7%,

$I^2 = 0\%$). Adverse events were infrequent: myocardial infarction occurred in 2.19% (95% CI: 1.07%-4.41%, $I^2 = 25.7\%$) and stroke in 2.2% (95% CI: 1.1%-4.4%, $I^2 = 25.7\%$).

Conclusion: In this meta-analysis, transcatheter tricuspid interventions were associated with a significant reduction in TR severity, with a low incidence of adverse events.



Control Number: 25-CCC-508-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-61

61

Topic 1: Valvular Diseases

Publishing Title: TRICUSPID VALVE REPLACEMENT AND LEFT ATRIAL APPENDAGE CLOSURE IN CONGENITALLY CORRECTED TRANSPOSITION OF THE GREAT ARTERIES

Author Block: Pablo Mireles, Roberto Jesús García Corral García, Mauricio Kuri, Enrique Ponce de Leon, samuel ivan Hermosillo gonzalez, Gerald Danilo Berrios Martinez, CHRISTUS MUGUERZA ALTA ESPECIALIDAD, MONTERREY, Mexico

Background: Congenitally corrected transposition of the great arteries (ccTGA) is a rare congenital defect (<1%) that can lead to progressive valvular dysfunction.

Case: A 46-year-old male with no significant history presented with exertional dyspnea and irregular palpitations. Examination revealed a holosystolic II/VI murmur with Rivero-Carvallo sign. ECG showed atrial fibrillation (AF) with moderate ventricular response. Transthoracic echocardiography confirmed ccTGA with severe tricuspid regurgitation on the systemic ventricle, warranting surgical intervention.

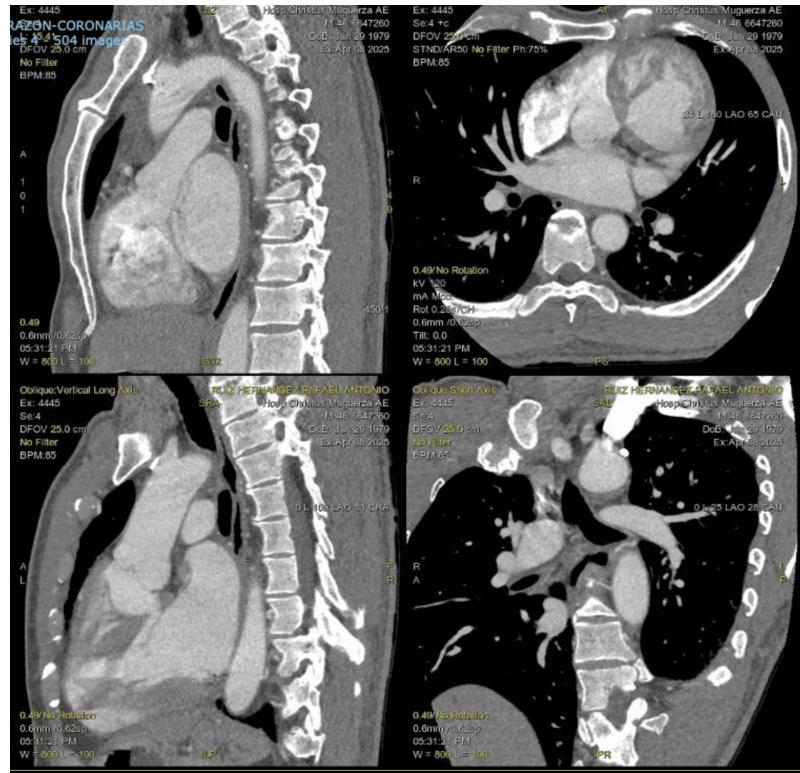
Abstract Body:

Decision-making: Intraoperative Findings and Management:

A left atriotomy was performed, and the tricuspid valve was visualized arising from the morphologic right ventricle. The valve was excised and replaced with a 31-33 mm mechanical prosthesis. Given the patient's history of paroxysmal AF, the left atrial appendage was ligated to reduce the risk of thromboembolic events. **Postoperative Course:**

The patient recovered successfully without complications and was started on warfarin. He was discharged 5 days later and is currently asymptomatic and tolerating exercise.

Conclusion: ccTGA can sometimes go unnoticed until adulthood. Early identification of valvular dysfunction in ccTGA allows for effective surgical management. Closure of the left atrial appendage in patients with AF helps prevent thromboembolic complications.



Control Number: 25-CCC-537-ACCLA

Session Title: Friday Afternoon Poster Session

Session Time: Friday, September 19, 2025, 3:20 pm - 3:50 pm

Presentation Number: 41-62

62

Topic 1: Valvular Diseases

Publishing Title: SILENT UNTIL DELIVERY: TRIPLE VALVULAR INVOLVEMENT IN RHEUMATIC VALVULAR DISEASE, REVEALED IN THE PERIPARTUM PERIOD

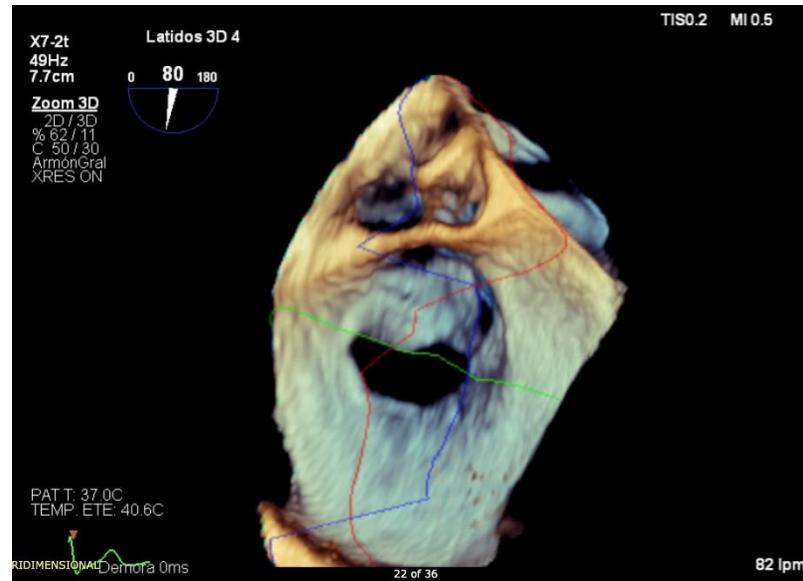
Author LAURA MENDOZA, Francisco Villadiego, Federico Nuñez, Oscar Sanchez, William Rios, Juan Parra, Luis Nates, Karen Morales, Christian Acosta, Fernan Mendoza, Fundación Clínica Shaio, Bogotá, Colombia, Universidad El Bosque, Bogotá, Colombia

Block: **Background:** Rheumatic heart disease (RHD) remains common in underserved regions and can remain asymptomatic until triggered by physiological stress such as pregnancy.
Case: A 22-year-old woman presented during the third trimester with decompensated heart failure. Postpartum stabilization was achieved after assisted vaginal delivery. Physical exam revealed murmurs of mitral, tricuspid, and aortic regurgitation. The electrocardiography showed sinus rhythm with P wave abnormalities. The Echocardiogram confirmed RHD with severe mitral stenosis/regurgitation, severe aortic regurgitation, and moderate tricuspid disease. Left ventricular ejection fraction was 42%. She underwent mechanical mitral and aortic valve replacement, bioprosthetic tricuspid replacement, and ascending aorta reconstruction.

Abstract Body: **Decision-making:** Postoperative Holter monitoring showed intermittent AV block and sinus dysfunction. Although a cardiodesfibrilador with resynchronization was considered, recovery of AV conduction allowed deferring device implantation. She remained stable on warfarin and heart failure therapy. Social and geographic factors required coordinated

outpatient planning.

Conclusion: Pregnancy unmasked severe, triple-valve rheumatic requiring early surgery. Rhythm disturbances must be reassessed before device implantation. Multidisciplinary care ensures safe recovery, especially in low-resource settings.



Saturday Abstracts and Cases

Control Number: 25-CCC-478-ACCLA

Session Title: Challenging Cases in Cardiac Arrhythmias and Interventions and Ischemic Heart Diseases

Session Time: Saturday, September 20, 2025, 9:00 am - 9:50 am

Presentation Number: 22-05

Poster Board

Number:

Topic 1: Cardiac Arrhythmias

Publishing Title: GENETIC TESTING IN UNEXPLAINED SYNCOPES: UNMASKING A FAMILY WITH CPVT

Author Ronald Eduardo Pucha, Maria Troya Toro, LUIS ALFONSO MORENO
Block: RONDON, Juan Carlos Diaz-Heredia, Universidad de Especialidades Espíritu Santo, Guayaquil, Ecuador, Los Ceibos General Hospital, Guayaquil, Ecuador

Background: Syncope may indicate life-threatening conditions, frequently underestimated in young people. Risk scores assist in stratifying patients but may fail to identify underlying genetic causes.

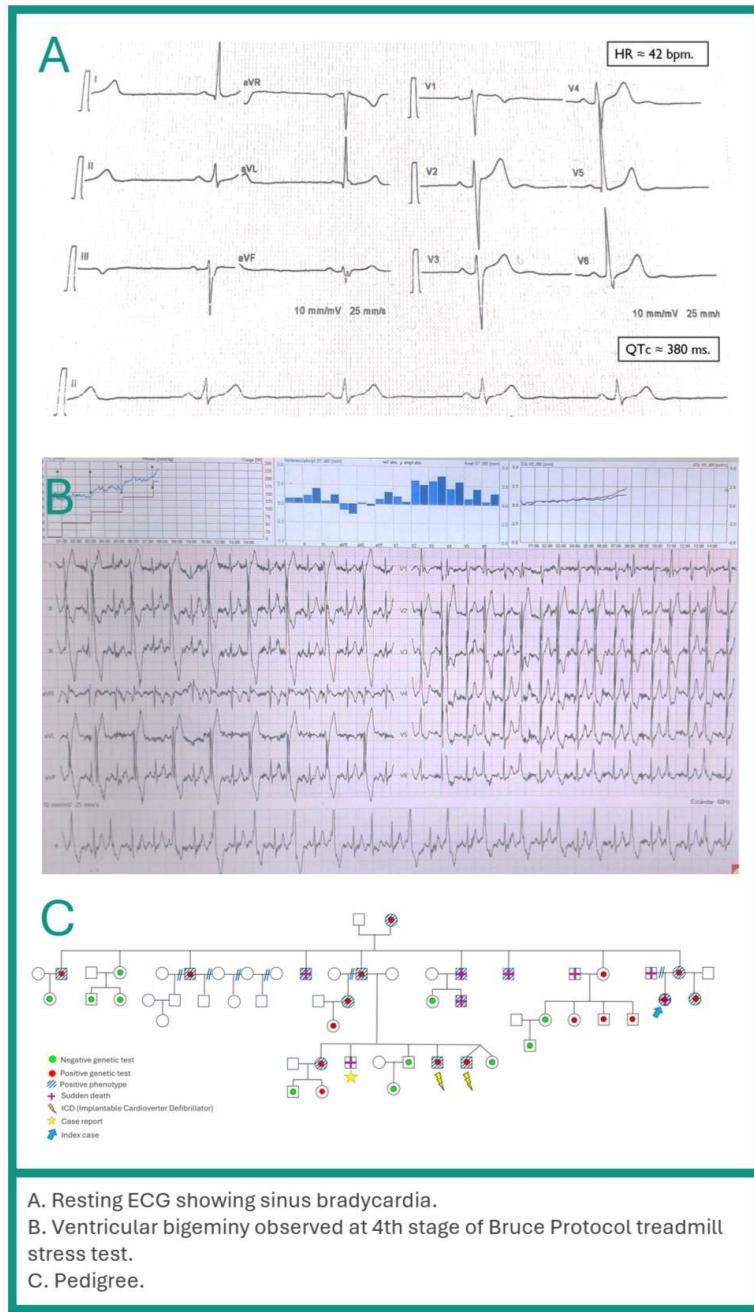
Case: A 21-year-old man had recurrent syncope while swimming. ECG showed sinus bradycardia. Syncope scores indicated an intermediate-to-high risk. Treadmill stress test showed chronotropic incompetence and ventricular bigeminy. ECG Holter revealed frequent ectopy and low heart rate variability. Angio-CT was normal. A pacemaker was implanted after an episode of extreme bradycardia, yet he died suddenly a month later. Shortly after, another sudden death occurred within the family, and molecular autopsy revealed RYR2 c.1659G>A (p.Arg420Gln) mutation, confirming Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT).

Decision-making: Lackness of pathognomonic arrhythmia during exercise test joint to minimal ECG abnormalities misled clinical thinking to a bradiarrhythmic explanation, being the genetic testing critical to establish the

Abstract Body:

correct underlying condition. Family screening identified 16 gene carriers, and further guideline-directed approach resulted in no more sudden deaths.

Conclusion: Genetic testing proved essential in diagnosing and managing this high-risk family and can be lifesaving in unexplained syncope, guiding therapy and preventing sudden death.



Control Number: 25-CCC-866-ACCLA

Session Title: Challenging Cases in Cardiac Arrhythmias and Interventions and Ischemic Heart Diseases

Session Time: Saturday, September 20, 2025, 9:00 am - 9:50 am

Presentation Number: 22-07

Poster Board

Number:

Topic 1: Cardiac Arrhythmias

Publishing Title: CARDIONEUROABLATION IN PEDIATRIC PATIENT WITH FUNCTIONAL BRADYCARDIA GUIDED BY ELECTROANATOMIC MAPPING: A 2-CASE REPORT

Author Block: Saul Yair Guillot Castillo, María Alejandra Monroy Jiménez, Elias Noel Andrade Cuellar, Rogelio Robledo Nolasco, Juan Carlos Solis Gomez, Elena Pastrana Arrellano, Ivan Alejandro Elizalde Uribe, National Medical Center "November 20", Institute of Security and Social Services of State Workers, Mexico City, Mexico

Background: Functional sinus node dysfunction and atrioventricular (AV) block can stem from excessive parasympathetic activation.

Cardioneuroablation (CNA), which refers to ganglionated plexus (GP) ablation, has emerged as an alternative by abolishing the excessive vagal influence

Abstract Body: **Case:** 12-year-old with recurrent syncope. Holter revealed a mean heart rate (HR) of 60 beats/min, with sinus pauses up to 4.4 seconds. Atropine test showed an increase HR >25%. Electrophysiological study showed fractionated potentials in superior and inferior portions of right atrium (RA). 21 radiofrequency lesions were delivered. 14-year-old with occasional syncope, and sinus bradycardia 40 beats/min. Atropine challenge revealed a marked HR rise to 128 beats/min. Electroanatomic mapping localized the GP in the RA, involving the superior and inferior regions. 25 radiofrequency

lesions were delivered

Decision-making: Protocols advocate for biatrial approach or left-sided access, our patients achieved optimal clinical outcomes by limiting the ablation of RA GP, guided by electroanatomic mapping. This underscores the importance of tailoring the ablation strategy to the anatomic distribution of the GP

Conclusion: CNA represents an effective and safe option as an alternative to permanent pacing in adolescents. In these cases, it eliminated bradycardia and syncope without complications at 6-month follow-up. These findings highlighting the potential of CNA to prevent lifelong pacemaker dependence



Control Number: 25-CCC-772-ACCLA

Session Title: Challenging Cases in Cardiac Arrhythmias and Interventions and Ischemic Heart Diseases

Session Time: Saturday, September 20, 2025, 9:00 am - 9:50 am

Presentation Number: 22-09

Poster Board

Number:

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: NIGHTMARE IN THE CATH LAB: IVUS-GUIDED PCI FOR FULL-LENGTH IATROGENIC RIGHT CORONARY ARTERY DISSECTION

Author Omar Alejandro Gil Guzmán, ERICK IVAN COLIN ALVAREZ, Alejandro Alcocer Chauvet, NOE CASTAÑEDA ACEVES, Julio Cesar Rivera Hermosillo, **Block:** VIRIDIANA MILLAN MARTINEZ, EVALDO ZOE RIVAS HERNANDEZ, ISSSTE, CIUDAD DE MEXICO, Mexico

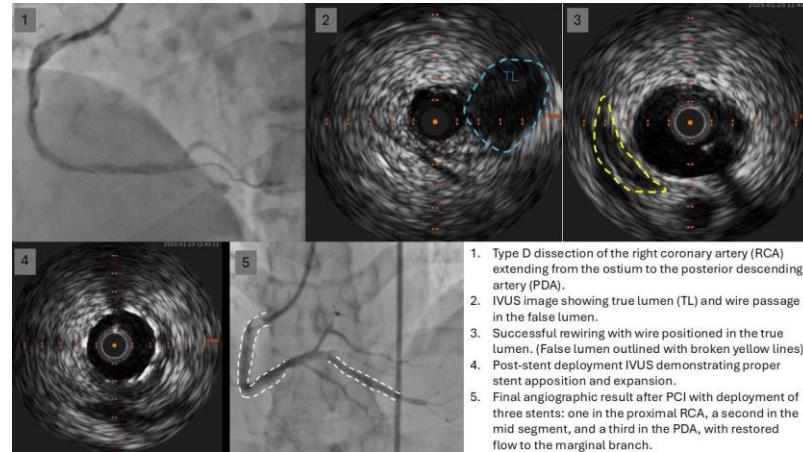
Background: Iatrogenic coronary dissection (ICD) is a rare but serious complication of PCI, resulting from mechanical injury to the arterial wall. It may impair coronary flow, ischemia or infarction depending on the dissection extent and propagation.

Case: A 55-year-old male with history of hypertension, smoking, presented with NSTEMI. Angiography showed a 70% type B lesion ostial in the right coronary artery (RCA). A guidewire was advanced to distal posterior descending artery, followed by IVUS, which showed a fibrous plaque. Balloon predilatation was done twice. Post-dilatation angiography revealed a type D dissection from ostial to posterior descending artery (PDA) with loss flow to marginal branches (MB). ST elevation appeared. IVUS confirmed subintimal wire position and reentry into true lumen, prompting wire repositioning. Two stents were placed from ostial to mid RCA, IVUS revealed persistent PDA dissection required a third stent. Final IVUS confirmed good expansion and restores MB flow.

Abstract Body:

Decision-making: ICD is an uncommon complication with an incidence reported around 0.7% (1). Once ICD is diagnosed, the use of intravascular imaging becomes essential. IVUS has been shown to be useful for confirming true lumen access (2), guiding rewiring, stent implantation, post dilatation optimization and assessing for residual dissection (3).

Conclusion: In expert hands IVUS is a viable option for treatment and decision-making when faced with complex coronary dissections.



Control Number: 25-CCC-755-ACCLA

Session Title: **Challenging Cases in Cardiac Arrhythmias and Interventions and Ischemic Heart Diseases**

Session Time: Saturday, September 20, 2025, 9:00 am - 9:50 am

Presentation Number: 22-11

Poster Board

Number:

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: CHALLENGES IN THE CLOSURE OF POST-INFARCTION VENTRICULAR SEPTAL DEFECT IN THE PRESENCE OF COLD ANTIBODIES: AN ALTERNATIVE PERCUTANEOUS STRATEGY

Francisco Palma, Winston Reyes, Daniela Cortes, Jhoel Amores, Juan C.

Author Block: Wong, SR, Juan Taboada, Jose Quiros, Hospital Santo Tomas, Panama, Panama, Panama

Background: Post-myocardial infarction (MI) ventricular septal defect (VSD) is a rare but life-threatening complication with high short-term mortality. Although surgical repair is the standard of care, specific conditions may preclude its use.

Case: A 60-year-old hypertensive man presented with over 12 hours of chest pain. The electrocardiogram showed extensive anterior ST-elevation myocardial infarction. Physical exam revealed pulmonary congestion and a holosystolic murmur at the left sternal border. Transesophageal echocardiography (TEE) revealed two apical septal defects with left-to-right shunt, leading to right-sided pressure and volume overload. Coronary angiography demonstrated 70% mid-left anterior descending artery stenosis and distal thrombotic occlusion. The patient progressed to New York Heart Association (NYHA) class IV. Cold agglutinins were detected during initial laboratory workup.

Decision-making: Surgical closure was initially considered, but cold agglutinin antibodies posed a high hemolytic risk with extracorporeal

Abstract Body:

circulation. A multidisciplinary team, including pediatric cardiology consultants, opted for a percutaneous strategy. The larger defect was closed first to minimize hemodynamic destabilization, postponing the second intervention. Due to unfavorable venous access, a retrograde approach via single femoral arterial access was chosen. A 7 Fr Judkins Right 4 catheter was used to position and deploy a Konar MF 10-8 occluder (Lifetech Scientific, China). Post-procedure TEE confirmed complete closure without residual shunt. The patient improved to NYHA class I and was scheduled for the second closure.

Conclusion: Percutaneous closure could be a viable alternative in post-MI VSD, particularly when surgery is contraindicated. Vascular access challenges and defect characteristics may require adapted techniques, including retrograde arterial approaches.

Control Number: 25-A-434-ACCLA

Session Title: Cardiovascular Disease Prevention Oral Abstracts

Session Time: Saturday, September 20, 2025, 10:00 am - 10:50 am

Presentation Number: 25-05

Poster Board

Number:

Topic 1: Cardiovascular Disease Prevention

Publishing Title: CHARACTERIZING THE IMPACT OF DIABETES SUBGROUPS ON CVD MORTALITY AMONG CC-LAC POPULATION: A DATA-DRIVEN APPROACH USING POPULATIONAL-BASED PROSPECTIVE STUDIES.

Author Block: Cesar Torres Chavez, Instituto Nacional de Cardiología "Ignacio Chavez", Ciudad de México, Mexico

Background: Cardiovascular disease (CVD) is the leading cause of death in Latin America, particularly among individuals with type 2 diabetes (T2D). The clinical heterogeneity of T2D has led to the development of a new classification into subgroups, allowing the identification of phenotypes with distinct risk profiles. The aim of this study was to evaluate the association of four T2D subgroups—MOD (mild obesity-related diabetes), SIDD (severe insulin-deficient diabetes), SIRD (severe insulin-resistant diabetes), and MARD (mild age-related diabetes)—with cardiovascular mortality in Latin American populations.

Methods: We used data from The Cohorts Consortium of Latin America and the Caribbean (CC-LAC) with an average follow-up of 8.5 years. Diabetes subgroups were defined using a previously validated neural network algorithm, based on clinical and biochemical variables. To evaluate the association with cardiovascular mortality, Cox proportional hazards models adjusted for age, sex, and urbanization were applied to estimate Hazard Ratios (HRs, 95% CI).

Results: Among 2,449 individuals with type 2 diabetes, the following

subgroup distribution was identified: MOD (31.5%), MARD (32.5%), SIDD (25.6%), and SIRD (10.5%). Belonging to the SIDD or SIRD subgroup was associated with a higher risk of cardiovascular mortality compared to the MOD group (HR: 1.97; 95% CI: 1.01-3.83; $p = 0.044$). The MARD phenotype showed a trend toward statistical significance (HR: 1.90; 95% CI: 0.93-3.89; $p = 0.074$).

Conclusion: The SIDD and SIRD phenotypes were associated with a higher risk of cardiovascular mortality, highlighting differences in cardiovascular risk among individuals with type 2 diabetes

Control Number: 25-A-454-ACCLA

Session Title: Cardiovascular Disease Prevention Oral Abstracts

Session Time: Saturday, September 20, 2025, 10:00 am - 10:50 am

Presentation Number: 25-07

Poster Board

Number:

Topic 1: Cardiovascular Disease Prevention

Publishing Title: GEOGRAPHIC DISPARITIES IN CARDIOVASCULAR DISEASE IN SANTIAGO, DOMINICAN REPUBLIC: A RURAL-URBAN POPULATION-BASED ANALYSIS

Alvaro Taveras, Maireny Nicole Almánzar, Ana Criselys Tatis, Fiodor Abel

Author Block: Tejada, Pontificia Universidad Católica Madre y Maestra (PUCMM), Santiago, Dominican Republic

Background: Cardiovascular disease (CVD) remains the leading cause of death in Latin America, yet its burden is not uniformly distributed across populations. Rural areas, often underserved, may experience higher prevalence and poorer outcomes. This study aimed to compare the prevalence of cardiovascular diseases and associated risk factors between rural and urban populations in Santiago, Dominican Republic.

Methods: A cross-sectional, population-based study was conducted from May 2023 to March 2024. A total of 392 households were selected through stratified cluster sampling by urban and rural location. Adults were surveyed using structured questionnaires to assess diagnosed hypertension, myocardial infarction (MI), heart failure, dyslipidemia, and behavioral risk factors (tobacco use, physical inactivity, obesity). Access to healthcare services was also evaluated. Statistical comparisons between urban and rural groups were performed using chi-square tests, with $p < 0.05$ considered significant.

Results: Of 1,033 individuals surveyed, 51.5% resided in urban and 48.5% in rural areas. Hypertension was significantly more prevalent in rural areas (43.2% vs. 34.5%; $p = 0.02$), as was heart failure (8.2% vs. 5.4%; $p = 0.05$). MI

Abstract Body:

showed a trend toward higher rural prevalence (5.3% vs. 3.2%; $p=0.07$). Tobacco use was higher in rural areas (11.6% vs. 7.2%; $p=0.04$), while physical inactivity was common in both settings (>75%). Rural participants were less likely to report consistent follow-up for chronic conditions (87.5% vs. 95.8%; $p<0.01$).

Conclusion: Cardiovascular conditions and associated risk factors are disproportionately higher in rural areas of Santiago. These findings underscore the need for targeted CVD prevention and healthcare access strategies in underserved rural communities in Latin America.

Control Number: 25-A-617-ACCLA

Session Title: Cardiovascular Disease Prevention Oral Abstracts

Session Time: Saturday, September 20, 2025, 10:00 am - 10:50 am

Presentation Number: 25-09

Poster Board Number:

Topic 1: Cardiovascular Disease Prevention

Publishing Title: FATAL CARDIOVASCULAR RISK IN DATA-DRIVEN DIABETES SUBGROUPS USING A LEXIS EXPANSION COX PROPORTIONAL HAZARDS MODEL IN 25,000 ADULTS IN MEXICO

Author Block: Jeronimo Perezalonso Espinosa, Carlos A. Fermín-Martínez, Daniel Ramírez-García, Karime B. Carrillo-Herrera, Leslie A. Cabrera-Quintana, Omar Y. Bello-Chavolla, Research Division, Instituto Nacional de Geriatría, Mexico City, Mexico, Facultad de Medicina, Universidad Nacional Autónoma de México, Mexico City, Mexico

Background: Type 2 diabetes has been characterized as five distinct subgroups: mild age-related diabetes (MARD), mild obesity-related diabetes (MOD), severe insulin-resistant diabetes (SIRD), severe insulin-deficient diabetes (SIDD) and severe autoimmune diabetes (SAID). These subgroups have shown diverging risks for complications, and have been reproduced across diverse populations. However, it remains unclear whether they can improve cardiovascular risk prediction.

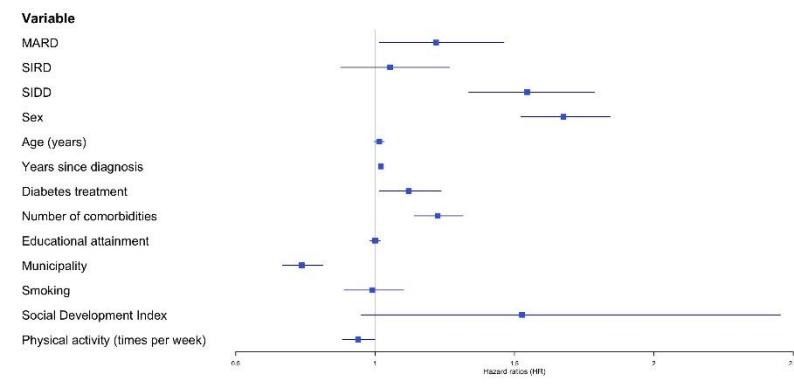
Methods: We replicated the subgroups in a cohort of Mexican adults with diabetes (n = 25,106; 58 years [SD 12] and 66.7% female) using self-normalizing neural networks. We then applied a Lexis expansion to account for varying hazards over long-term follow-up. A Cox model was fitted for a composite of fatal stroke and myocardial infarction. We stratified by age and adjusted for relevant variables.

Results: During a mean follow-up of 16 (SD 6) years, 2,223 (8.9%) fatal

cardiovascular events were reported. Subgroup distribution was: MOD (15.4%), MARD (16.7%), SIRD (17.3%) and SIDD (50.6%). With MOD reference, the hazard ratios were 1.22 (95%CI 1.02-1.46) for MARD, 1.05 (95%CI 0.88-1.27) for SIRD and 1.54 (95%CI 1.34-1.79) for SIDD.

Conclusion: Among adults with diabetes in Mexico, SIDD is associated with a substantially increased risk of fatal cardiovascular events compared to other subgroups. Cardiovascular prevention strategies in adults with diabetes may benefit from taking into account the heterogeneity between subgroups.

Figure 1. Hazard Ratio for Diabetes Subgroups with a Lexis-expanded Cox Model



Control Number: 25-A-945-ACCLA

Session Title: Cardiovascular Disease Prevention Oral Abstracts

Session Time: Saturday, September 20, 2025, 10:00 am - 10:50 am

Presentation Number: 25-11

Poster Board

Number:

Topic 1: Cardiovascular Disease Prevention

Publishing Title: SEX-BASED CARDIOVASCULAR AND PULMONARY FOLLOW-UP IN LONG COVID AT 6 AND 12 MONTHS

Author Block: Lev Bladimir Ramírez, Camila Cobos-Moya, Universidad de La Sabana, chia, Colombia, Universidad de La Sabana, Chia, Colombia

Background: Long COVID is characterised by symptoms persisting beyond four weeks post-SARS-CoV-2 infection. Cardiovascular and respiratory sequelae are common, especially in women, yet long-term sex-based outcomes remain underexplored in Latin America.

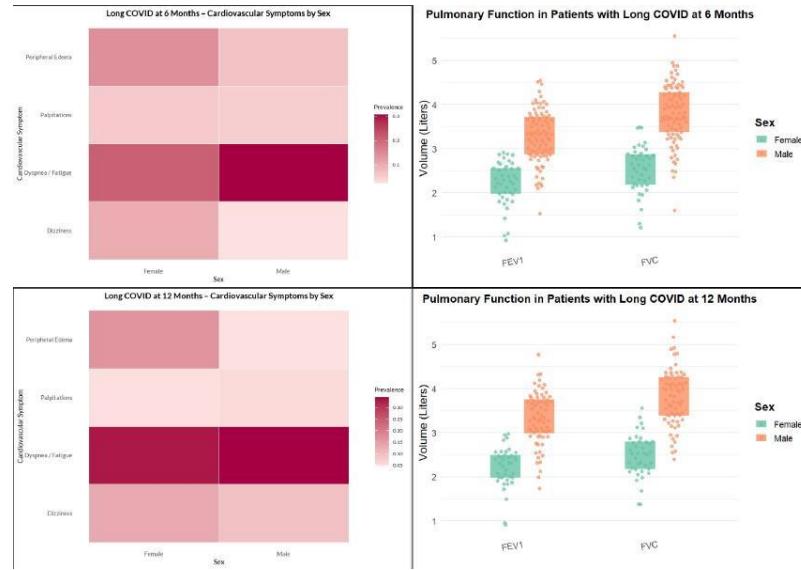
Methods: We conducted a prospective cohort study of 205 Colombian patients with Long COVID evaluated at 6 and 12 months. Structured symptom questionnaires and pulmonary function tests (FEV1, FVC) were performed. Cardiovascular symptoms—dizziness, palpitations, dyspnea, and peripheral edema—were analysed by sex and timepoint. Heatmaps and statistical comparisons were used to visualise trends.

Results: Of the 205 participants, 63.5% were female; median age was 56.4 years (IQR 48-66). Hypertension (33.2%), diabetes (7.3%), and smoking history (18.6%) were common. At 6 months, women reported more dizziness (18.5% vs 13.3%), dyspnoea/fatigue (23.1% vs 16.0%), and oedema (14.6% vs 10.7%) than men. These persisted at 12 months. FEV1 and FVC were lower in women (e.g., FEV1: 2.57 L vs 3.27 L at 6 months). Sex-based differences were statistically significant ($p < 0.05$ for dyspnea and FVC).

Conclusion: Women with Long COVID showed greater cardiovascular

Abstract Body:

symptom persistence and pulmonary function impairment at 6 and 12 months. These findings underscore the need for sex-specific post-COVID follow-up protocols to ensure equitable recovery and reduce long-term morbidity in women.



Control Number: 25-A-369-ACCLA

Session Title: Heart Failure and Cardiomyopathies Oral Abstracts

Session Time: Saturday, September 20, 2025, 1:30 pm - 2:20 pm

Presentation Number: 29-04

Poster Board

Number:

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EFFICACY OF CARDIAC MYOSIN ACTIVATORS COMPARED TO PLACEBO IN PATIENTS WITH HEART FAILURE AND REDUCED EJECTION FRACTION: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

Author Block: Miguel Angel Samaniego Laguna, Andrea Tripoli, Norma N. Gamarra-Valverde, Shivraj Selvam, Alejandro Barbagelata, Robert John Mentz, Juliana M. Giorgi, Universidad Autónoma Metropolitana, Mexico City, Mexico

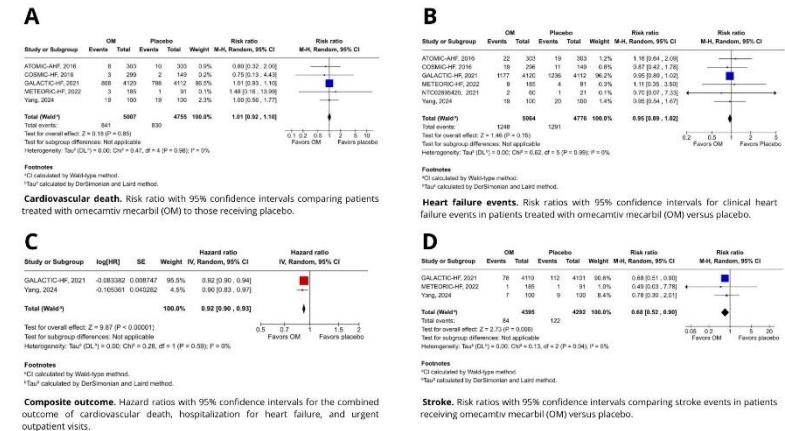
Background: Cardiac myosin activators (CMAs) are a novel class of inotropes that enhance systolic function while avoiding increased myocardial oxygen demand. The effects of CMAs on important clinical outcomes in heart failure diagnosed with reduced ejection fraction (HFrEF) remain uncertain.

Methods: A systematic review and meta-analysis of randomized controlled trials comparing CMAs to placebo in HFrEF patients was conducted following PRISMA guidelines and a PROSPERO-registered protocol. Nine trials including 10,019 patients (5,204 CMAs) were included. Primary outcomes were cardiovascular (CV) death, heart failure (HF) events, and all-cause mortality. Secondary outcomes included stroke and composite outcome of CV death, HF hospitalization, and urgent visits.

Results: CMAs showed no significant difference in CV death (RR 1.01; 95% CI 0.92-1.10), HF recurrence (RR 0.95; 95% CI 0.89-1.02), or all-cause mortality (RR 1.00; 95% CI 0.93-1.07) versus placebo. However, CMAs

significantly reduced the composite of CV death, HF hospitalization, and urgent visit (HR 0.92; 95% CI 0.90-0.93; $p<0.00001$), and stroke (RR 0.68; 95% CI 0.52-0.90; $p=0.006$); sensitivity analyses did not show significant differences.

Conclusion: In patients with HFrEF, CMAs improved the composite cardiovascular outcome and reduced stroke risk, without increasing mortality or adverse events. These findings suggest a potential role for these agents, warranting further investigation.



Control Number: 25-A-542-ACCLA

Session Title: Heart Failure and Cardiomyopathies Oral Abstracts

Session Time: Saturday, September 20, 2025, 1:30 pm - 2:20 pm

Presentation Number: 29-06

Poster Board Number:

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SOTATERCEPT IN PULMONARY ARTERIAL HYPERTENSION: IS IT SAFE ENOUGH? - A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

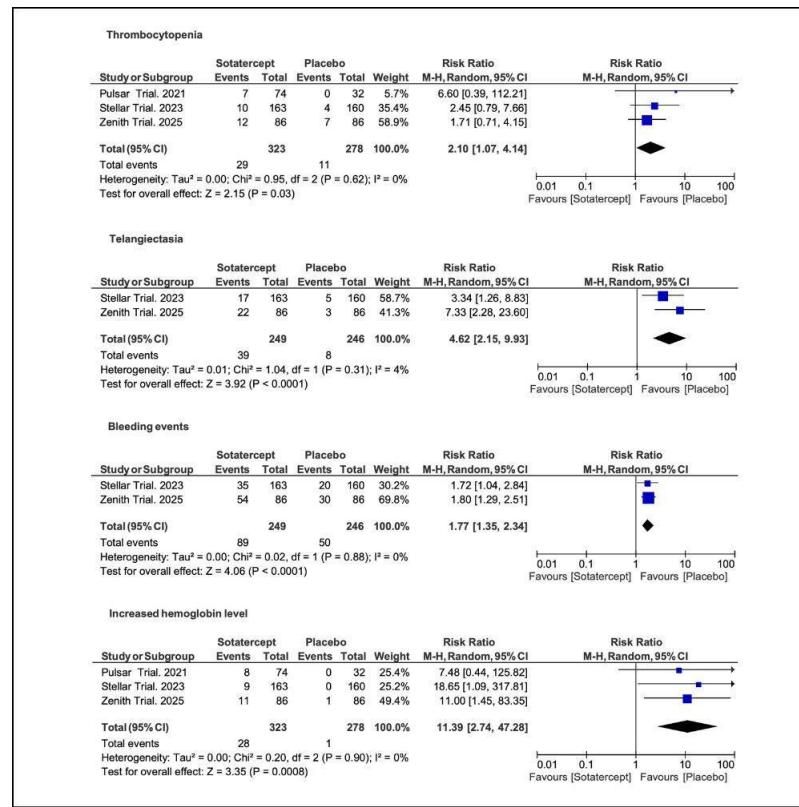
Adolfo Calderón-Fernández, Arath Josué Campos Muñoz, Daniel Eduardo Avendaño - Perez, Nishly Alejandra De La Luz-Solorzano, Seni Ocampo-Calderón, Mario Cesar Torres Chavez, Victor Andres Castillo, Stefanni Yanelly Rosales Garcia., Elva Alejandra Manjarrez Granados, Juan Jose Parcero, Autonomous University of Baja California, Tijuana, Mexico, National Institute of Medical Sciences and Nutrition Salvador Zubirán, Ciudad de México, México, Mexico City, Mexico

Background: Current Pulmonary Arterial Hypertension (PAH) guidelines recommend therapies with well-characterized safety profiles. Sotatercept, a novel agent, has shown efficacy but limited safety data. We aimed to quantify adverse events (AEs) associated with sotatercept versus placebo in PAH.

Abstract Body: **Methods:** We made a systematic review using two databases until May 1, 2025, identifying studies on 601 patients with PAH randomized to sotatercept or placebo. Primary Outcomes included specific AEs such as hemoglobin level elevation, thrombocytopenia, bleeding events, telangiectasia, and blood pressure levels. A random-effects model calculated risk ratios (RR) with 95% confidence intervals (CI), and heterogeneity was assessed with the Chi-squared test and I^2 statistic.

Results: Sotatercept significantly increased hemoglobin levels (RR: 11.39, 95% CI: [2.74, 47.28], $p = 0.0008$) and bleeding events (RR: 1.77, 95% CI: [1.35, 2.34], $p < 0.0001$). Moreover, sotatercept is associated with the development of thrombocytopenia ($p = 0.03$) and telangiectasia (RR: 4.62, 95% CI: [2.15, 9.93], $p < 0.0001$). Blood pressure levels were similar between groups.

Conclusion: Sotatercept is associated with an increased risk of clinically relevant hematologic and vascular AEs, unlike currently recommended PAH therapies. Comparative trials against guideline-endorsed therapies are needed to determine sotatercept's true net clinical value.



Control Number: 25-A-794-ACCLA

Session Title: Heart Failure and Cardiomyopathies Oral Abstracts

Session Time: Saturday, September 20, 2025, 1:30 pm - 2:20 pm

Presentation Number: 29-08

Poster Board

Number:

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CARDIOENLACE, A DIGITAL SOLUTION TO OVERCOME BARRIERS IN REMOTE MONITORING OF HEART FAILURE PATIENTS IN LATIN AMERICA

Andrea Paola Alarcón Rangel, Luis Enrique Hernandez Badillo, Carlos Alberto Guizar Sánchez, Jorge Luis Valderrábano Cruz, Amada Alvarez

Author Sangabriel, Juan Carlos De La Fuente Mancera, María Del Refugio Aguilar
Block: Serrano, Juan Manuel Vazquez, Cesar Martinez Medrano, Francisco Martin Baranda Tovar, Antonio Jordan-Rios, Instituto Nacional de Cardiología Dr Ignacio Chávez, CDMX, Mexico

Background: In Latin America's emerging economies, remote monitoring of heart failure (HF) faces challenges due to limited access and economic barriers. To address this, we developed CardioEnlace, a mobile app designed to optimize follow-up, prevent decompensations, and potentially reduce HF hospitalizations. Patients input daily vital signs, weight, abdominal circumference, fluid intake, and symptoms. An emergency button sends real-time alerts to a specialized HF team.

Abstract Body:

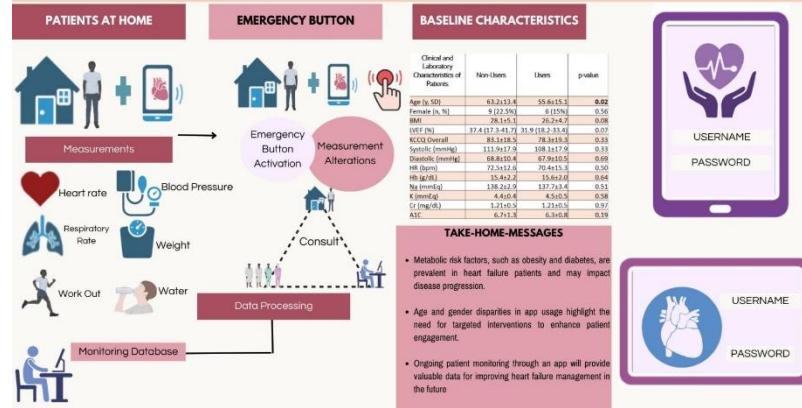
Methods: We analyzed the first 80 patients registered in 2024, all with HF with reduced ejection fraction (HFrEF). Data on left ventricle ejection fraction (LVEF), biochemical parameters, and quality of life via the Kansas City Cardiomyopathy Questionnaire (KCCQ) were collected. The cohort was divided into app users and non-users.

Results: Mean age differed significantly (63.2 vs. 55.6 years; p=0.02). Only 18.7% were women, and just 15.1% used the app. Median LVEF was 32.5%

(IQR 29.4-38.4). Mean body mass index was 27.2 vs. 26.2. No significant differences in KCCQ or A1C (mean 6.5) were observed.

Conclusion: Older age correlated with lower app engagement. All patients were overweight/obese with diabetes, suggesting poor metabolic status. Ongoing monitoring is needed, but CardioEnlace shows promise as a remote HF management tool in resource-limited settings.

CENTRAL ILLUSTRATION: CARDIOENLACE: A DIGITAL SOLUTION TO OVERCOME BARRIERS IN REMOTE MONITORING OF HEART FAILURE PATIENTS IN LATIN AMERICA



Control Number: 25-A-813-ACCLA

Session Title: Heart Failure and Cardiomyopathies Oral Abstracts

Session Time: Saturday, September 20, 2025, 1:30 pm - 2:20 pm

Presentation Number: 29-10

Poster Board

Number:

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: IMPACT OF A CARDIORENAL CLINIC ON HEART FAILURE GUIDELINE-DIRECTED MEDICAL THERAPY INSIGHTS FROM A NATIONAL TERTIARY REFERRAL CENTRE IN AN EMERGING ECONOMY

Author Block: Luis Enrique Hernandez Badillo, Victor H. Gómez-Johnson, Salvador Lopez Gil, Andrea Paola Alarcón Rangel, Jesus E. Enriquez-Guzman, Amada Alvarez Sangabriel, Francisco Martin Baranda Tovar, Magdalena Madero-Rovalo, Antonio Jordan-Rios, Instituto Nacional de Cardiología Dr Ignacio Chavez, CDMX, Mexico

Background: The global burden of cardiorenal disease is rising, prompting integrated care models. Cardiorenal clinics unite cardiologists and nephrologists. This study evaluated guideline-directed medical (GDMT) uptitration in severely ill cardiorenal patients.

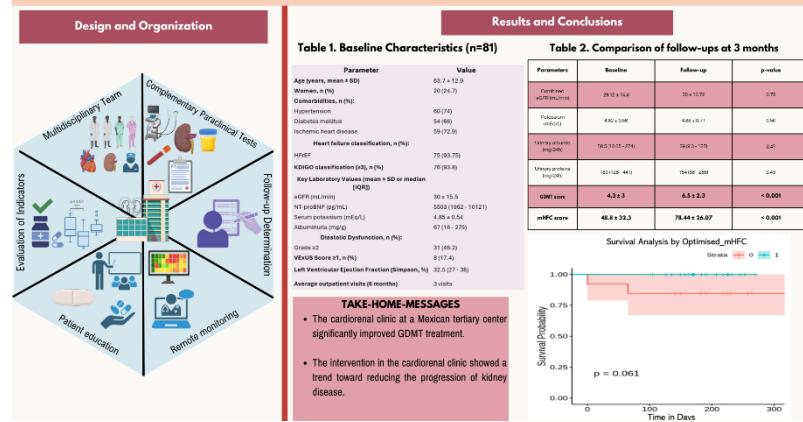
Methods: Between April 2024 and January 2025, 81 patients with heart failure (HFrEF, HFmrEF, or HFpEF) and chronic kidney disease (eGFR <60 ml/min/1.73m²) were prospectively analysed at the National Institute of Cardiology's cardiorenal clinic. All patients were jointly assessed by a cardiologist and a nephrologist to determine optimal treatment based on current evidence and ESC guidelines. The primary outcome was pharmacological optimisation, measured by the modified Heart Failure Collaborative (mHFC) score. A score >60 indicates good optimisation. Renal disease progression was also analysed.

Results: In this high-risk cohort, 93.7% had HFrEF, predominantly of

ischaemic origin (70.9%). Median LVEF was 32.5%, NT-proBNP 5503 pg/mL, and CA125 12.9. After six months, the mHFC score improved significantly (48.8 → 78.4; $p < 0.001$), with favourable renal outcomes.

Conclusion: Our cardiorenal clinic model significantly improved pharmacological optimisation and reduced prognostic markers such as albuminuria. No significant difference in CV mortality was observed, likely due to limited follow-up and sample size. Further analysis is ongoing

CENTRAL ILLUSTRATION: Impact of a Cardiorenal Clinic on Heart Failure Guideline-Directed Medical Therapy: Insights from a National Tertiary Referral Centre in an Emerging Economy



Control Number: 25-CCC-527-ACCLA

Session Title: Challenging Cases in Multimodal Imaging

Session Time: Saturday, September 20, 2025, 2:30 pm - 3:20 pm

Presentation Number: 32-04

Poster Board

Number:

Topic 1: Multimodal Imaging

Publishing Title: AN UNUSUAL ANATOMICAL FINDING: MITRAL ARCADE IN AN OLDER ADULT WITH HEART FAILURE

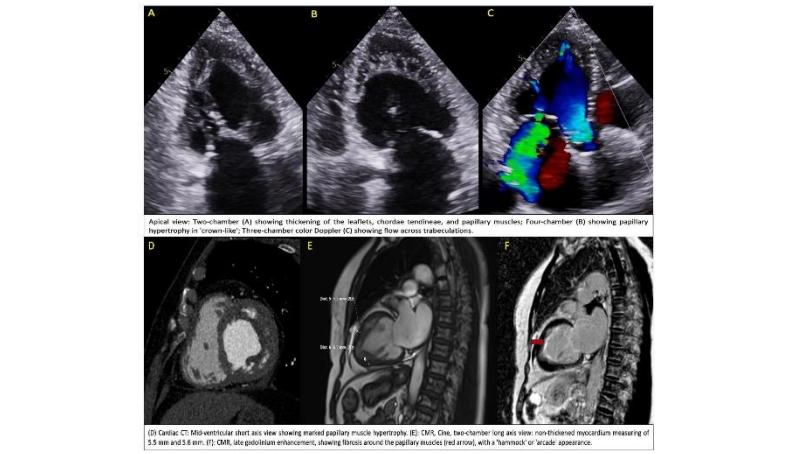
Author Block: BRYAN WALTER ANGULO GARCIA, Wilfredo Velezmoro, Miguel Agustin Reyes Rocha, Gabriela Acevedo, Javier Torres, SR, MARIA ELIZABETH, Hospital Nacional Edgardo Rebagliati Martins, Lima, Peru

Background: Mitral arcade is a rare congenital anomaly, survival into adulthood is uncommon due to valvular complications.

Case: A 76-year-old woman with hypertension and hypothyroidism presented with a one year history of progressive dyspnea, worsening NYHA functional class (CF) III. She was referred for a transthoracic echocardiogram (TTE) with moderate mitral regurgitation and suspicion of a coronary-ventricular fistula based on abnormal flows in the lateral and apical walls of the left ventricle. The TTE confirmed moderate regurgitation (Effective regurgitant orifice area: 20 mm^2 , regurgitant volume: 38 ml) due to ventricular tethering, grade III diastolic dysfunction with papillary muscles in crown-like, thickened leaflets, and short chordal insertions. Color Doppler showed multiple trabecular flows (Figure A, B, C). Cardiac tomography (CCT) ruled out coronary artery disease (Figure D). Cardiac magnetic resonance (CMR) confirmed the absence of ventricular hypertrophy, anomalous arrangement of the papillary muscles in an 'arcade' or 'hammock', and band-like fibrosis in the papillary muscles on late gadolinium enhancement (Figure E, F).

Decision-making: In a heart team, conservative management of heart failure was chosen. The patient experienced an improvement in her symptoms to NYHA CF I at two months.

Conclusion: Diagnosis of this congenital condition uses various imaging: TTE for morphology and hemodynamic impact, while CCT and CMR for detailed confirmation and treatment planning.



Control Number: 25-CCC-531-ACCLA

Session Title: Challenging Cases in Multimodal Imaging

Session Time: Saturday, September 20, 2025, 2:30 pm - 3:20 pm

Presentation Number: 32-06

Poster Board

Number:

Topic 1: Multimodal Imaging

Publishing Title: ATRIAL MASSES IN PREGNANCY: A TALE OF TWO STRATEGIES

Author Block: Beatrix Fernandez, Candice K. Silversides, Robert James Cusimano, Gideon Cohen, Marina Vainder, Toronto General Hospital, Toronto, Canada, Mount Sinai Hospital, Toronto, Canada

Background: Intracardiac masses are rare in pregnancy and pose diagnostic and therapeutic challenges. Management must weigh maternal-fetal risk, gestational age, and patient values.

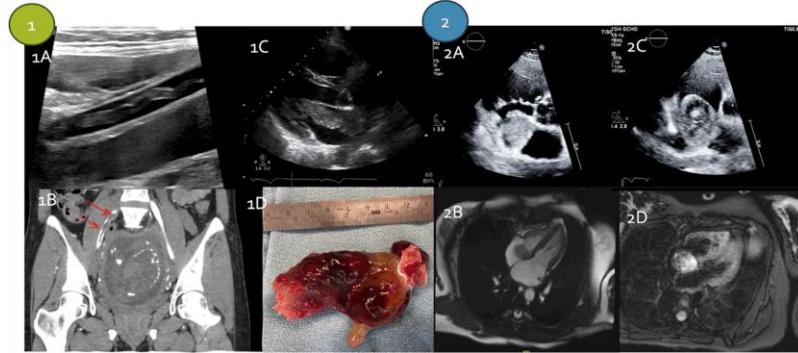
Case: 1. A 34-year-old G3P2 at 21 weeks presented with acute left leg ischemia. CT showed several embolic events. Imaging revealed a large (83×29 mm) left atrial mass prolapsing through the mitral valve. She had a surgical resection with careful anesthetic and perfusion planning.

Anticoagulation was maintained; she delivered vaginally at term without complications. **Case 2.** A 30-year-old G1P0 at 8 weeks presented with dyspnea. A right atrial mass (38×26mm) was found. She declined surgery and anticoagulation. Pregnancy was uneventful with detailed labor planning. Postpartum, the mass enlarged (46×32mm); MRI suggested myxoma. Surgery is scheduled.

Decision-making: These cases illustrate how multimodality imaging (CT, TTE, TEE, and MRI) is critical for accurate assessment, risk stratification, and guiding interventions throughout pregnancy. Both, surgical and conservative management strategies could be used. Surgery requires multidisciplinary

planning to minimize fetal exposure and perfusion risks. Conservative management demands vigilance to avoid embolism or obstruction, especially around delivery.

Conclusion: Individualized, multidisciplinary care: Cardiology, Imaging, Obstetrics, Anesthesia & Surgery are essential to accurately diagnose, treat and optimize outcomes in this high-risk setting.



Case 1:

1A. Duplex ultrasound showing a free-floating thrombus (~5 cm) in the left iliac artery.
1B. CT angiography confirming iliac thrombosis (red arrows) and showing the fetus.
1C. Transthoracic echocardiogram showing a large, heterogeneous, hypermobile left atrial mass attached to the interatrial septum, prolapsing through the mitral valve.
1D. Surgical specimen. Histopathology confirmed myxoma.

Case 2:

2A. Transthoracic echocardiogram at 8 weeks gestation showing a large right atrial mass near the tricuspid valve annulus, without prolapse.
2B. Non-contrast cardiac MRI at 12 weeks showing mild hyperintensity of the mass compared to the myocardium.
2C. Echocardiogram at 4 weeks postpartum showing increased size and heterogeneity of the right atrial mass.
2D. Contrast cardiac MRI confirming further growth, with T2 hyperintensity and isointensity on T1—features consistent with a likely myxoma.

Control Number: 25-CCC-551-ACCLA

Session Title: Challenging Cases in Multimodal Imaging

Session Time: Saturday, September 20, 2025, 2:30 pm - 3:20 pm

Presentation Number: 32-08

Poster Board

Number:

Topic 1: Multimodal Imaging

Publishing Title: CIRCUMFLEX CORONARY ARTERY TO DESCENDING AORTA FISTULA IN ASSOCIATION WITH COMPLEX AORTIC COARCTATION. AN EXTREMELY RARE CORRELATION

José Alfredo Delgado Cruz, SR, Sheila Vania Sánchez López, Daniel Campuzano González, Jaime Alfonso Santiago Hernandez, Israel García Dávalos, David Salazar Lizarraga, Horacio Márquez González, Diana López Gallegos, Carlos Riera Kinkel, Lucelli Yáñez Gutiérrez, Jose Abraham Luna Herbert, Bernardo Guerrero del Moral, Alberto Isaí Rodríguez Vázquez, Fernando Huerta Liceaga, Ramiro Villavicencio Martínez, Marlenet Olgún Leyva, Agustín Armando Ruiz Benítez, Hospital de Cardiología, Centro Médico Nacional Siglo XXI, IMSS., Ciudad de México, Mexico, Hospital Central Sur de Alta Especialidad, PEMEX, Ciudad de México, Mexico

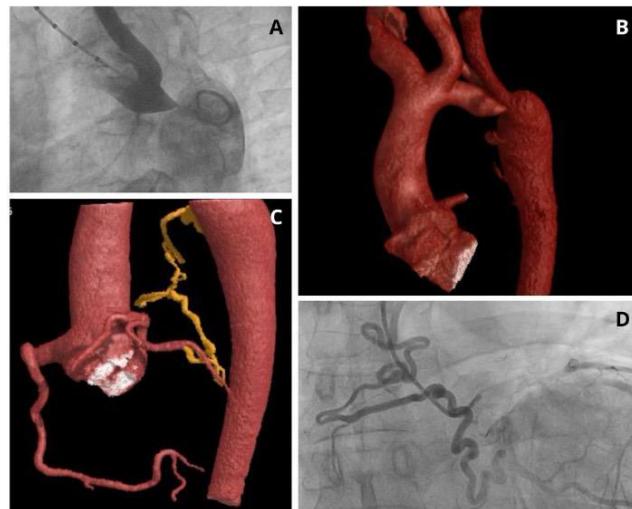
Background: 38-year-old male with no medical history.

Case: Admitted at emergency department presenting with angina and dyspnea, furthermore, blood pressure of 220/110 mmHg and pulmonary edema were documented. This warranted invasive mechanical ventilation, intravenous vasodilator therapy, and loop diuretics.

Abstract Body: **Decision-making:** His echocardiogram identified dilated cardiomyopathy, reduced left ventricular ejection fraction and bicuspid aortic valve. Blood pressure measurements were taken in all four extremities, showing a differential of more than 40 mmHg between the right upper and lower limbs. Given the suspicion of aortic coarctation, a contrast-enhanced ECG-gated

computed tomographic (CT) angiography of the heart and thoracic aorta was performed, which confirmed aortic coarctation with critical stenosis distal to the origin of the left subclavian artery, post-stenotic dilatation, bicuspid aortic valve and coronary artery fistula originating from the proximal third of the circumflex artery and draining into the descending aorta.

Conclusion: The coronary fistulas reported on CT angiography have a prevalence of 0.9%. The least common are those originating from the circumflex artery, reported in 5% of all cases. Nevertheless, in the medical literature, only two cases comparable to ours have been documented. Their association with other congenital anomalies is observed in 30% of patients, with aortic coarctation and bicuspid aorta being extremely rare findings.



A) Aortogram with evidence of aortic coarctation, vessel lumen measuring 3 mm and a gradient of 70 mmHg. B) 3D volume-rendered aortogram showing complex aortic coarctation. C) 3D volume-rendered angiography showing a bicuspid aorta and a coronary artery fistula originating from the proximal third of the circumflex artery and draining into the descending aorta. D) Left coronary angiography in right anterior oblique caudal projection with evidence of a proximal circumflex artery fistula draining into the descending aorta

Control Number: 25-CCC-553-ACCLA

Session Title: Challenging Cases in Multimodal Imaging

Session Time: Saturday, September 20, 2025, 2:30 pm - 3:20 pm

Presentation Number: 32-10

Poster Board

Number:

Topic 1: Multimodal Imaging

Publishing Title: UNMASKING A SILENT CULPRIT: AGITATED SALINE ECHOCARDIOGRAPHY DETECTS PULMONARY ARTERIOVENOUS MALFORMATION IN A YOUNG STROKE PATIENT

Author Deyrha Mills, Jose Valdez, Stephanie Castro, Steffany Green, Elvis Rivera,
Block: Pamela Piña Santana, Indhira A. Zabala, Joaquin Perez-Osorio, Cesar J. Herrera, CEDIMAT Cardiovascular Center, Santo Domingo, Dominican Republic

Background: The etiology of ischemic stroke in young adults often remains uncertain despite extensive workup. While intracardiac shunts are a well-recognized cause, pulmonary arteriovenous malformations (PAVM) are frequently overlooked due to low clinical suspicion.

Case: A 29-year-old male with a prior ischemic stroke at age 23 presented to the emergency room with acute expressive aphasia. Brain MRI confirmed an acute ischemic infarct in the left parietal lobe. He underwent intravenous thrombolysis without complications, leading to a complete resolution of his aphasia.

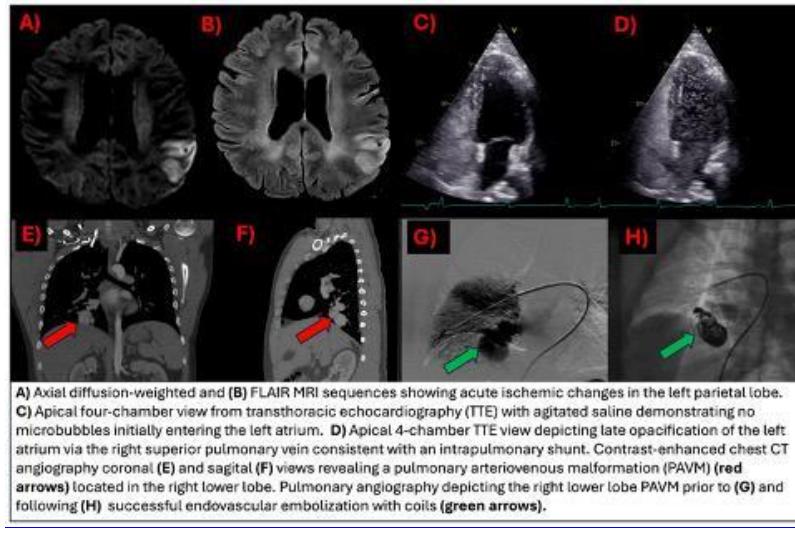
Decision-making: Given his young age and stroke recurrence, a detailed etiologic workup was pursued. Transthoracic echocardiography showed no intracardiac shunt. However, agitated saline contrast echocardiography revealed abundant microbubbles entering the left atrium via the right superior pulmonary vein, strongly suggesting a significant intrapulmonary shunt. Subsequent thoracic CT angiography confirmed absence of

Abstract

Body:

anomalous arteriovenous drainage and presence of a PAVM which was successfully treated with endovascular coil embolization.

Conclusion: This case highlights the diagnostic utility of echocardiography in young patients with cryptogenic stroke. Clinicians should consider PAVMs as a potential source of paradoxical embolism, particularly when bubble studies show early left-sided opacification without evidence of a patent foramen ovale or intracardiac shunt.



Control Number: 25-CCC-392-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-01

Poster Board Number: 01

Topic 1: Cardiac Arrhythmias

Publishing Title: DECISIONS TO BE MADE ABOUT SECONDARY PREVENTION IN SUDDEN CARDIAC DEATH AND BRUGADA SYNDROME.

Author Block: Alejandro Tobon Velez, Valentina Aristizabal, JAIME PARRA, Sebastian Naranjo, Clinica CES, MEDELLÍN, Colombia

Background: Brugada Syndrome is a hereditary arrhythmogenic condition associated with sudden cardiac death. First described by the Brugada brothers in 1992, it has garnered increasing attention, explaining up to 28% of sudden deaths in patients with structurally normal hearts.

Case: A 67-year-old woman with a history of syncope and a brother who died suddenly at age 50 was brought to the emergency department after losing consciousness during lunch and the need for cardiopulmonary resuscitation. A 12-lead electrocardiogram revealed a Brugada type I

Abstract Body: pattern. Transthoracic echocardiography showed no abnormalities, and a 24-hour Holter monitor recorded ventricular extrasystoles. During a stress test, the Brugada pattern became more evident, particularly during the recovery phase. A diagnosis of aborted sudden cardiac death was made, and a subcutaneous cardiac defibrillator was implanted for secondary prevention.

Decision-making: Patients presenting with high-risk syncope require a careful evaluation for potential causes of cardiac death and ventricular arrhythmias. The 12-lead ECG is an indispensable tool in detecting high risk-associated electrical conduction patterns. The presence of a type I Brugada pattern without echocardiographic abnormalities, alongside a

resuscitated cardiac arrest episode, supports further diagnostic exploration through arrhythmia provocation testing or electrophysiological studies.

Clinical decision-making takes into account family history, ECG patterns enhanced during stress test, premature ventricular complexes, and the syncopal event.

Conclusion: Brugada syndrome may present in individuals without prior clinical history and with structurally normal hearts. In this case, the combination of family history, clinical features, and an aborted sudden cardiac death, justified the implantation of a subcutaneous defibrillator. A type I Brugada pattern in patients with cardiogenic syncope should prompt multidisciplinary evaluation. Risk stratification protocols, provocation testing, and electrophysiological studies should be standardized in assessing patients at risk of malignant arrhythmias.

Control Number: 25-CCC-584-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-02

Poster Board Number: 02

Topic 1: Cardiac Arrhythmias

Publishing Title: INAPPROPRIATE SHOCKS FROM A SUBCUTANEOUS DEFIBRILLATOR DUE TO REPEATED MUSCLE CONTRACTIONS

Author Block: Arturo Mas, Carmen ALicia Sanchez Contreras, Miguel Alfonso Meza Aquino, Ignacio Chávez National Institute of Cardiology, Mexico city, Mexico

Background: Inappropriate shocks are therapies delivered at rates other than ventricular tachycardia/fibrillation. Surgical technique and discrimination of ventricular arrhythmias have improved; however, inappropriate shocks have a significant incidence.

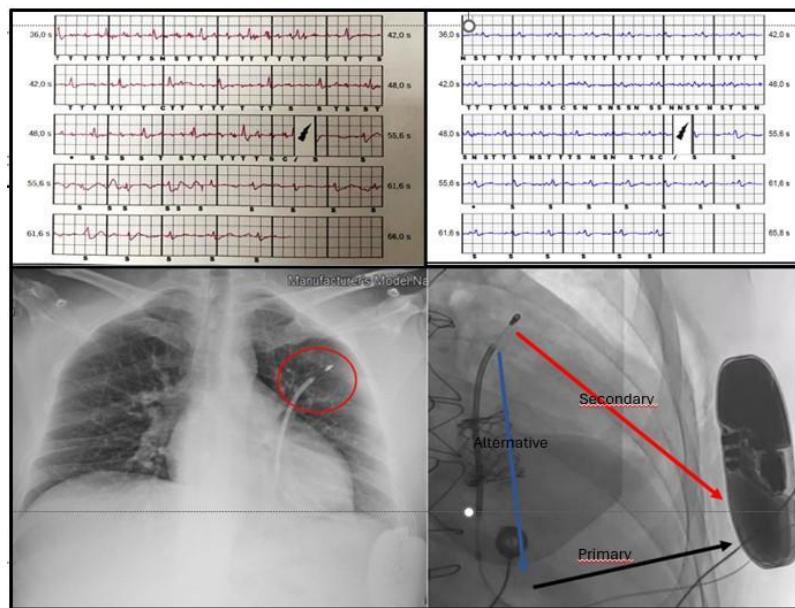
Case: We present two patients with subcutaneous defibrillators for secondary prevention who experienced one and two inappropriate shocks, associated with tooth brushing and vegetable cutting, respectively. In both cases the sensing vector was changed to primary and no artifacts were detected. No new events occurred at 12-month follow-up.

Decision-making: Non-cardiac overdetection is the least frequent mechanism, and muscle potentials are rarely described. The latter could be related to the displacement of the distal tip of the coil described in the two-incision technique. In the two patients who presented this mechanism, an unusually greater distance of the distal part of the coil from the sternum was observed. Figure 1. Top: inappropriate shocks by muscle potentials. Bottom: Displacement of distal tip of coil (red circle).

Conclusion: Inappropriate shocks due to repeated muscle contractions

Abstract Body:

may be related to displacement of the distal tip of the coil.



Control Number: 25-CCC-659-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-03

Poster Board Number: 03

Topic 1: Cardiac Arrhythmias

Publishing Title: PREMATURE VENTRICULAR COMPLEX OF THE RIGHT VENTRICULAR OUTFLOW TRACT. WHEN BENIGN IT CAN BE MALIGNANT

Author Block: Arturo Mas, Carmen Alicia Sanchez Contreras, Ignacio Chávez National Institute of Cardiology, Mexico city, Mexico

Background: Polymorphic ventricular tachycardia is a life-threatening arrhythmia. A rare cause is premature ventricular complex (PVC) of the right ventricular outflow tract (RVOT).

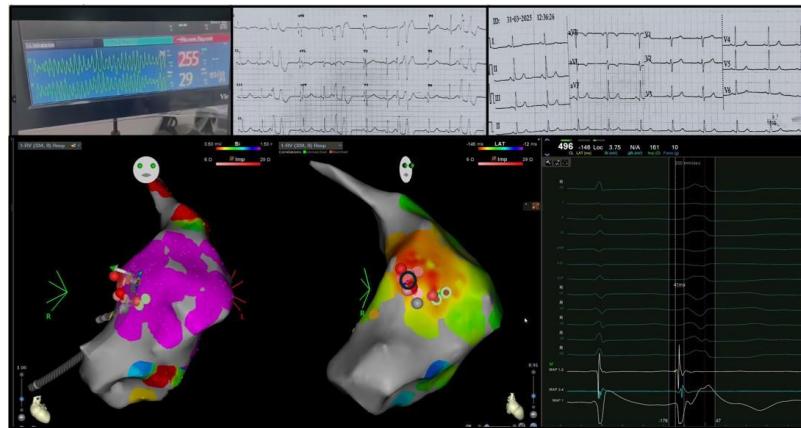
Case: We present a 64-year-old woman with recurrent syncope and polymorphic ventricular tachycardia. Her baseline electrocardiogram showed frequent RVOT PVCs with a coupling period of 400 ms and a prematurity index of 0.5. Other causes were ruled out. The PVC was determined to be malignant and ablation was performed. Voltage map showed healthy tissue and activation map located an anterolateral RVOT origin. Successful ablation was performed. One-month follow-up revealed no PVCs or symptoms.. Figure 1. Top left to right: polymorphic ventricular tachycardia. Premature ventricular complex. Electrocardiogram after ablation. Bottom: voltage and activation maps with ablation points in the anterolateral RVOT.

Decision-making: About 3% of RVOT PVCs cause polymorphic ventricular tachycardia. Features of malignancy are short coupling time and prematurity index <0.73 . The non-inducibility of tachycardia after ablation cannot be considered a criterion of success and the variable recurrence after the event

Abstract Body:

makes cardiofibrillator implantation uncertain.

Conclusion: Premature ventricular complexes in the right ventricular outflow tract can trigger polymorphic ventricular tachycardia.



Control Number: 25-CCC-609-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-04

Poster Board Number: 04

Topic 1: Cardiac Arrhythmias

Publishing Title: BROKEN RHYTHM - ARRHYTHMIC STORM IN CHAGAS CARDIOMYOPATHY

Author Block: Augusto Pupiales Davila, Miguel Lopez Lizarraga, Santiago Nava Townsend, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Chagas cardiomyopathy (CC) represents a diagnostic challenge for cardiologists. It is the leading cause of non ischemic cardiomyopathy in the Americas

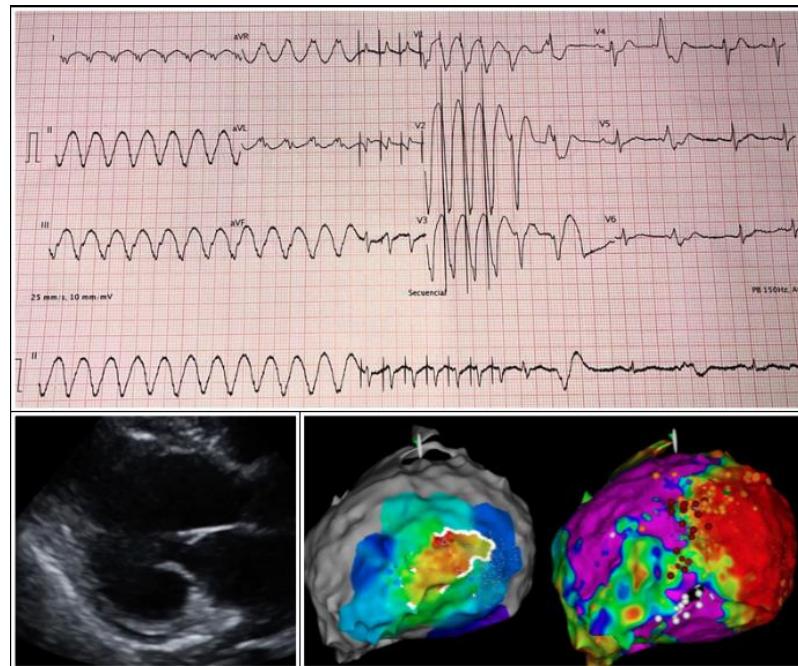
Case: A 52-year-old man went to the cardiovascular emergency service due to palpitation and loss of consciousness. The initial evaluation showed a sustained monomorphic ventricular tachycardia with hemodynamic instability, synchronized electrical cardioversion was performed. Coronary artery disease were rule out. He had recurrent episodes of arrhythmia. Many attempts of cardioversion were unsuccessful, prompting a escalation of therapy for electrical storm

Abstract Body:

Decision-making: Multimodality imaging reveal an inferolateral left ventricular aneurysm. Chagas disease was confirmed. Ablation was performed in the endo-epicardial regions of the anatomical substrate. An implantable cardioverter-defibrillator (ICD) was placed. After six months he was readmitted with new electrical storm. Device reprogramming therapy was unsuccessfully. A new ablation was performed but it was not successful. He was listed for a heart transplant

Conclusion: The most common cardiac complications include left

ventricular dysfunction, congestive heart failure, ventricular arrhythmias, and sudden arrhythmic death. CC is primarily an arrhythmogenic cardiomyopathy the rational and stepwise use of conventional and advanced therapies plays a crucial role in managing individuals at high risk for sudden cardiac death



Control Number: 25-CCC-854-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-05

Poster Board Number: 05

Topic 1: Cardiac Arrhythmias

Publishing Title: LEADLESS PACEMAKER IN CONGENITAL AV BLOCK WITH RECURRENT POCKET INFECTIONS

Author Block: Stephania Céspedes, Andrés Gómez, Lisa López, Diana Bonilla, Angiografia de Occidente, Santiago de cali, Colombia

Background: Cardiac pacing has transformed the management of atrioventricular block. In patients with cognitive impairments, transvenous pacemakers may lead to complications due to pocket manipulation, including infection or lead dislodgement. Leadless systems eliminate this risk by removing the need for subcutaneous pockets and transvenous leads.

Case: A female patient with congenital AV block, mental disability, and epilepsy underwent several transvenous pacemaker implants. She

Abstract Body: developed recurrent infections at both prepectoral sites due to persistent manipulation. Despite explants and contralateral reimplantations, complications persisted.

Decision-making: Due to repeated infections, a leadless intracardiac pacemaker (Micra™, Medtronic) was implanted via a femoral approach. The procedure was successful, and no infections or malfunctions were reported at six months. This case supports using leadless pacing in patients with behavioral risks for complications.

Conclusion: Due to repeated infections, a leadless intracardiac pacemaker (Micra™, Medtronic) was implanted via a femoral approach. The procedure was successful, and no infections or malfunctions were reported at six

months. This case supports using leadless pacing in patients with behavioral risks for complications.

Control Number: 25-A-856-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-06

Poster Board Number: 06

Topic 1: Cardiac Arrhythmias

Publishing Title: USE OF BEDAQUILINE IN THE TREATMENT OF DRUG-RESISTANT TUBERCULOSIS AND ITS EFFECTS ON THE QT INTERVAL: A SYSTEMATIC REVIEW

Author Block: Henrique Pinheiro Borges de Lima, Sérgio Henrique da Silva Santos, Centro Universitário EuroAmericano, Brasília, Brazil

Background: Drug-resistant tuberculosis (DR-TB) is a serious public health challenge. Bedaquiline, incorporated into the treatment of DR-TB, represents a significant therapeutic advancement. However, its use is associated with cardiac adverse events, particularly QT interval prolongation, which requires careful assessment to ensure its safety in clinical use. The aim of this study is to conduct a systematic review aimed at evaluating the effect of bedaquiline use on the QT interval in patients with DR-TB.

Abstract Body: **Methods:** A search for scientific evidence was conducted in the PubMed/MEDLINE and Scopus databases. The Health Sciences Descriptors (DeCS) used were: "bedaquiline," "tuberculosis," "QT prolongation," and "cardiac safety." Original studies, systematic reviews, and meta-analyses published between 2017 and 2023 in English were included. The final sample consisted of 21 articles. The QT interval was corrected using Fridericia's formula ($QTcF = QT/RR^{1/3}$).

Results: The analysis of the studies showed that significant QTc prolongation (≥ 500 ms or ≥ 60 ms from baseline) varied widely among the

analyzed studies, with an incidence ranging from 2.7% to 30%. This was more frequent in combined treatment regimens involving other cardiotoxic drugs such as delamanid or fluoroquinolones, used in multidrug therapies for DR-TB. No statistically significant differences were found between sexes. Most cases were managed through therapeutic adjustments or temporary drug suspension. Severe events such as Torsades de Pointes were rare. Elevated plasma drug levels, drug interactions, treatment duration longer than eight weeks, and age over 45 years were associated with increased QTc prolongation risk.

Conclusion: Bedaquiline offers clear benefits in the treatment of DR-TB. However, the potential for QT interval prolongation is a relevant adverse effect. Safe management strategies, such as dose adjustments in cases of treatment interruptions and the use of predictive risk tools, appear promising. Rigorous clinical monitoring is necessary, including baseline and regular follow-up electrocardiograms, as well as careful assessment of drug interactions to ensure treatment safety.

Control Number: 25-A-629-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-07

Poster Board Number: 07

Topic 1: Cardiovascular Disease Prevention

Publishing Title: BEYOND LDL-C: REAL-WORLD EVALUATION OF PLEIOTROPIC EFFECTS OF INCLISIRAN IN HIGH-RISK CARDIOVASCULAR PATIENTS

Author Block: Stefan Toth, Pavol Jozef Safarik university, Kosice, Slovakia

Background: PCSK9 inhibition has emerged as a cornerstone in the management of dyslipidemia, primarily by reducing LDL-C, a key driver of atherosclerosis. Inclisiran, the first siRNA targeting PCSK9, achieves ~50% LDL-C reduction in clinical trials. Preliminary evidence also suggests pleiotropic effects, including modulation of inflammation, Lp(a) and other lipid fractions. This study aims to assess these effects in a real-world cohort of high-risk cardiovascular patients and explore responses beyond LDL-C lowering.

Abstract Body: **Methods:** We evaluated 68 patients initiated on inclisiran per standard clinical and reimbursement protocols. Lipid parameters (LDL-C, HDL-C, total cholesterol, triglycerides, Lp(a), sdLDL, and inflammatory biomarkers (IL-6, hsCRP) were measured at baseline and one month after the second dose (3+1 months from initiation). Percent and absolute changes were analyzed, and associations between biomarker dynamics and baseline therapy were explored.

Results: The cohort included 45 patients with prior ACS/revascularization and 23 with cerebrovascular events. One patient was statin-intolerant; others received either high-intensity (n=35) or reduced-dose statin therapy (n=32). Baseline median LDL-C was 3.56 mmol/L [IQR: 3.01-4.14], Lp(a) 14.28 mg/dL [8.19-21.05], and hsCRP 4.2 mg/dL [2.9-5.5]. At follow-up,

LDL-C dropped by 57.5% [50.4-76.8%], Lp(a) by 14.3% [8.2-21.1%], IL-6 by 8% [0.7-10%], and hsCRP by 1.2 mg/dL [0.5-1.9]. A stronger Lp(a) reduction correlated with greater LDL-C lowering. Interestingly, patients on reduced statin doses had persistently higher inflammatory markers.

Conclusion: Inclisiran significantly reduced LDL-C in real-world conditions, consistent with clinical trial data. Importantly, it also exhibited potential pleiotropic effects, including modest reductions in Lp(a), IL-6, hsCRP, and sdLDL. The variability in anti-inflammatory response highlights the influence of background lipid-lowering therapy and patient-specific factors. These findings support the evolving role of inclisiran not only as an LDL-C-lowering agent but as a modulator of broader atherogenic risk based on the background therapies of the patients.

Control Number: 25-A-644-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-08

Poster Board Number: 08

Topic 1: Cardiovascular Disease Prevention

Publishing Title: ACADEMIC STRESS AND ITS IMPACT ON CARDIOVASCULAR RISK IN UNIVERSITY STUDENTS IN LATIN AMERICA

Author Block: José Miguel Nangullasmú Arellanes, PROCARDIO, Universidad Autónoma de Nuevo León, Monterrey, Mexico

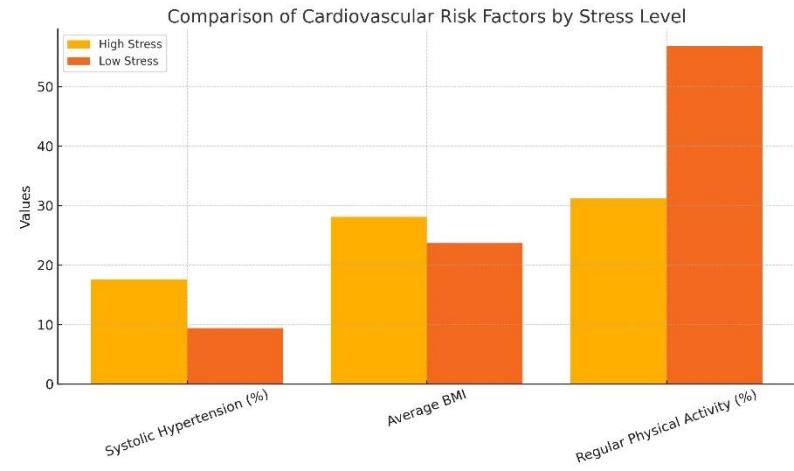
Background: Chronic academic stress has been identified as an emerging risk factor for cardiovascular diseases, especially in young populations. This study aimed to evaluate the relationship between perceived stress levels and the presence of cardiovascular risk factors in Latin American university students.

Methods: A cross-sectional study was conducted involving 684 university students aged 18 to 29 from Mexico, Colombia, Argentina, and Peru.

Abstract Body: Participants completed the Perceived Stress Scale (PSS-10) and a standardized survey assessing eating habits, physical activity, tobacco use, and family history. Blood pressure, body mass index (BMI), and resting heart rate were also measured.

Results: High stress levels (PSS-10 > 20) were observed in 64.3% of participants. This group showed significantly higher prevalence of systolic hypertension (17.6% vs. 9.4%, p < 0.01), increased BMI (28.1 ± 3.9 vs. 23.7 ± 3.1, p < 0.01), and lower rates of regular physical activity (< 3 times/week). A positive and significant correlation was found between stress scores and resting heart rate (r = 0.43, p < 0.001). No significant differences were found by sex or country of origin.

Conclusion: Elevated academic stress levels in Latin American university students are associated with a higher cardiovascular risk profile. These findings highlight the need for preventive strategies focused on mental health to reduce future cardiovascular disease burden in young adults.



Control Number: 25-A-724-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-09

Poster Board Number: 09

Topic 1: Cardiovascular Disease Prevention

Publishing Title: PREVALENCE OF PREGNANCY IN PATIENTS WITH CONGENITAL HEART DISEASE

Author Block: Ana Alarcón Martínez, Romina Daniela Pérez Domínguez, Jesús Alberto Blanco Hernández, Monserrath Basilio Téllez, Monserrat Flores Arriaga, Christian Guillermo Tapia Cervantes, Jonathan Reyes-Rivera, Carla Domínguez, Andrea Magdalena Luna Hernández, Karla Alejandra Pupiales Dávila, Jorge Sanchez, Stephanie Angulo, Edgar Garcia Cruz, Instituto Nacional de Cardiología, Mexico City, Mexico

Background: The majority of patients with congenital heart disease (CHD) reach adulthood. Therefore, many women with CHD are of reproductive age and may become pregnant.

Methods: A descriptive, cross-sectional study was conducted on patients with CHD at INCICH. Data were obtained from an internal registry of 3,451 patients between 2021 and 2022. Women over 18 years of age with CHD who had at least one outpatient visit were included. Patients with incomplete data were excluded.

Results: Out of a total of 1,347 women (39%), 747 (55.4%) had at least one pregnancy. Of these, 69% were in NYHA class I, 24% in class II, 5.2% in class III, and 2.4% in class IV. Based on ESC classification, 53% had mild, 37% moderate, and 10% severe complexity. According to ACC/AHA anatomical classification, 57% were mild, 35% moderate, and 8.2% severe. Functionally, 36% were in ACC/AHA physiological stage C and 11% in stage D. A high probability of pulmonary hypertension (PH) was observed in 29%

Abstract Body:

of women who had been pregnant versus 24% in those who had not ($p=0.001$). Arrhythmias were reported in 27% of women with a history of pregnancy compared to 23% without ($p=0.001$). Mortality was 4.6% in women who had been pregnant versus 4.8% in those who had not ($p=0.8$).

Conclusion: Pregnancy is common among women with congenital heart disease in our setting (55.4%). There were no differences in mortality compared to non-pregnant women, but a higher prevalence of probable pulmonary hypertension and arrhythmias was observed in those who had been pregnant.

Control Number: 25-A-777-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-10

Poster Board Number: 10

Topic 1: Cardiovascular Disease Prevention

Publishing Title: REVOLUTIONIZING ACCESS TO CARDIOVASCULAR CARE: TELEMEDICINE IMPACT IN 4,793 PATIENTS FROM RURAL COLOMBIA

Juan Camilo Pedreros, Juanita Gonzalez Garcia, Juan Pablo Angulo Pinilla, Custodio Alberto Ruiz Bedoya, Esperanza Nathali Alonso Uribe, Camilo Andres Hernandez Parra, Lady Carolina Galindo Arias, Maria Alejandra

Author Block: Morales Camacho, Mario Andres Nuñez Cortez, María Lucía Florez Jimenez, Mauricio Lizcano Arango, Diego Fabian Lozano Lozano, Diego Alexander Joya Olivares, Fundación Aboot Shaio, Bogotá, Colombia, Ministerio de Tecnologías de la Información y las Comunicaciones de Colombia, Bogotá, Colombia

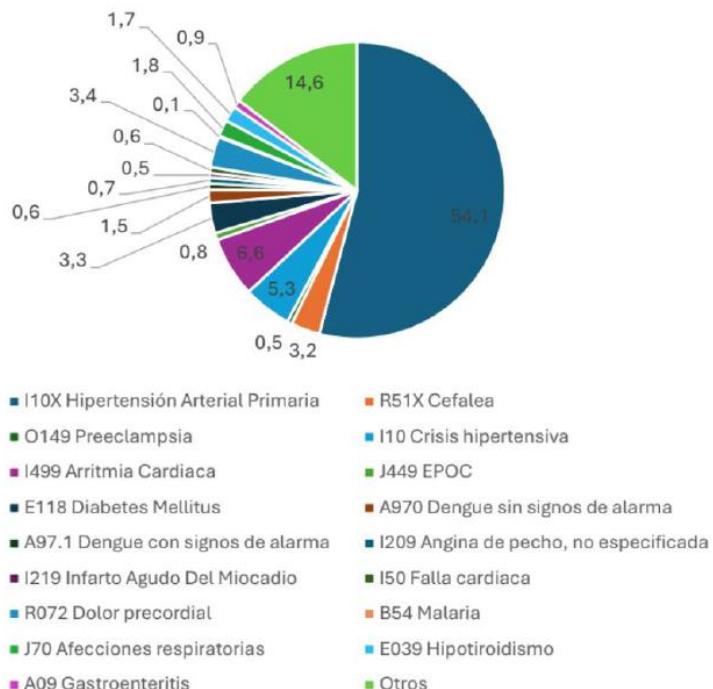
Background: Limited access to specialized cardiovascular care in rural regions remains a major health challenge. This study evaluated the impact and patient experience of a telemedicine program using telemonitoring and tele-expertise in underserved areas of Colombia.

Methods: A prospective study from July to December 2024 included 4,793 patients across 17 hospitals. Data were collected using a non-invasive chest patch measuring 13 hemodynamic variables over three days. Continuous telemonitoring, combined with tele-expertise via video calls with specialists, enable real-time diagnostic and therapeutic guidance. Patients completed a satisfaction survey afterward.

Results: 4,793 patients were included, 63% were women. Of them, 87.6% received home-based care, 15.4% hospital care, and 1.02% were transferred

to higher-level care. Hypertension was most prevalent (54.1%), followed by arrhythmias (6.55%). satisfaction was high: 95% rated service quality positively, 93% found the technology easy, and 97% reported overall satisfaction.

Conclusion: This telemedicine program improved healthcare in remote areas, reducing hospitalizations and unnecessary transfers. High acceptance and satisfaction suggest it is a viable, replicable model for areas with similar barriers. It also shows potential to prevent major cardiovascular events through continuous monitoring and proactive disease control.



Gráfica 1. Totalidad de diagnósticos en el proyecto SaludTIC.

Control Number: 25-CCC-821-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-11

Poster Board Number: 11

Topic 1: Cardiovascular Disease Prevention

Publishing Title: OVERCOMING CHALLENGES IN HIGH-RISK PREGNANCY: MANAGING CONGENITAL HEART DISEASE AND UNBALANCED ATRIOVENTRICULAR SEPTAL DEFECT (AVSD)

Author Block: Ana Alarcón Martínez, Romina Daniela Pérez Domínguez, Jesús Alberto Blanco Hernández, Jonathan Reyes-Rivera, Monserrath Basilio Téllez, Christian Guillermo Tapia Cervantes, Monserrat Flores Arriaga, Andrea Magdalena Luna Hernández, Karla Alejandra Pupiales Dávila, Carla Domínguez, Jorge Sanchez, Stephanie Angulo, Edgar Garcia Cruz, Instituto Nacional de Cardiología, Mexico City, Mexico

Background: Pregnancy in women with congenital heart disease (CHD) poses significant challenges, especially in cases involving complex and unrepaired defects

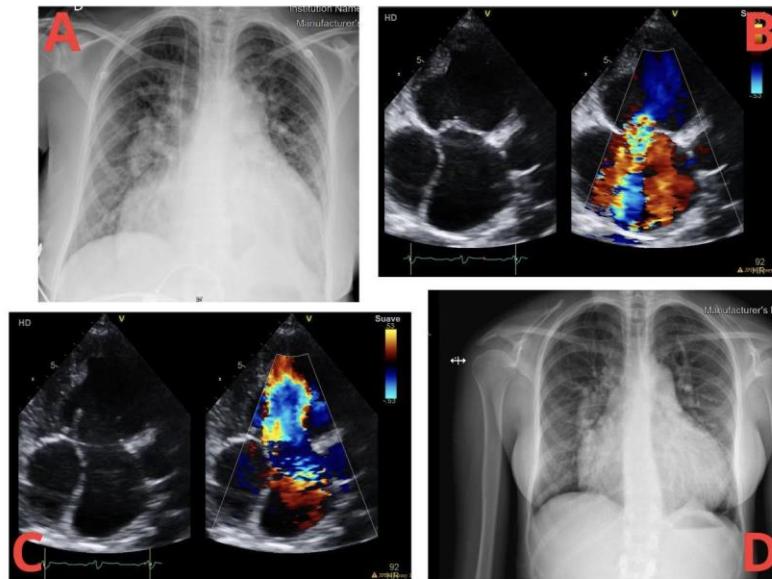
Case: A 26-year-old woman with a diagnosis of unbalanced atrioventricular septal defect (AVSD), unrepaired. She had a history of tobacco and cocaine use, both discontinued upon learning of the pregnancy. Her obstetric history includes two prior spontaneous miscarriages. She presented at 32.6 weeks of an unplanned pregnancy with dyspnea and an SpO₂ of 67%. Chest X-ray showed cardiomegaly, and echocardiography revealed a Rastelli type A AVSD, moderate regurgitation of the left AV valve, estimated PASP of 110 mmHg, and right heart chamber dilation

Decision-making: The patient was classified as extreme maternal risk (WHO IV, CARPREG III, and high ZAHARA score). Supportive treatment was

Abstract Body:

initiated with oxygen therapy, diuretics, and fetal monitoring. After completing a course of pulmonary maturation, an urgent cesarean section was performed due to signs of fetal distress. A live female neonate weighing 1455 g was delivered with APGAR scores of 7 and 9. Postoperatively, the mother required inotropic support. Upon stabilization, sildenafil and anticoagulation therapy were started. She was discharged following clinical improvement

Conclusion: This case highlights the importance of multidisciplinary management of pregnancy in patients with congenital heart disease to reduce maternal and fetal complications.



A) X-ray during pregnancy showing cardiomegaly, biventricular dilation, with predominance of right-sided chambers, highlighting pulmonary hyperflow and venocapillary hypertension. B) Apical four-chamber view, with color Doppler, showing significant insufficiency, single AV valve. C) Apical four-chamber view with color Doppler, showing an atrioventricular septal defect, with an inlet VSD and a primum atrial septal defect with a bidirectional shunt. D) X-ray in the surgical postpartum period, showing improvement with treatment with a decrease in venocapillary flow hypertension.

Control Number: 25-A-591-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-12

Poster Board Number: 12

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: NT-PROBNP LEVELS AND THEIR CORRELATION WITH ECHOCARDIOGRAPHIC PARAMETERS OF DIASTOLIC DYSFUNCTION IN PATIENTS WITH HEART FAILURE WITH PRESERVED EJECTION FRACTION

Yareli Lizbeth Rojas Salazar, Emiliano Gómez Montañez, Jorge Gustavo

Author Block: Rojas Salazar, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Mexico

Background: Heart failure with preserved ejection fraction (HFpEF) is a growing public health challenge, characterized primarily by diastolic dysfunction rather than impaired systolic function, in which N-terminal pro-B-type natriuretic peptide (NT-proBNP) is a key biomarker in heart failure diagnosis and prognosis, but its correlation with specific echocardiographic markers of diastolic dysfunction in HFpEF remains incompletely defined.

This study aimed to evaluate the relationship between NT-proBNP levels and echocardiographic parameters of diastolic dysfunction in patients with HFpEF.

Abstract Body:

Methods: We conducted a cross-sectional observational study including patients with clinical diagnosis of heart failure and preserved left ventricular ejection fraction ($\geq 50\%$) and NT-proBNP levels were measured at the time of echocardiographic assessment. Key echocardiographic parameters evaluated included E/e' ratio, left atrial volume index (LAVI), and tricuspid regurgitation velocity (TRV). Correlation analyses between NT-proBNP and each parameter were performed using Spearman's rank correlation coefficient.

Results: A total of 138 patients were included (mean age 72 ± 9 years, 58% female) and NT-proBNP levels showed a moderate positive correlation with E/e' ratio ($\rho = 0.56$, $p < 0.001$) and LAVI ($\rho = 0.48$, $p < 0.01$), and a weaker but significant correlation with TRV ($\rho = 0.32$, $p = 0.03$). Patients in the highest NT-proBNP tertile had significantly worse diastolic function grades and subgroup analysis showed stronger correlations in patients with comorbid atrial fibrillation.

Conclusion: In patients with HFpEF, NT-proBNP levels correlate significantly with key echocardiographic parameters of diastolic dysfunction. These findings reinforce the role of NT-proBNP not only as a diagnostic biomarker but also as a reflection of structural and functional cardiac changes in HFpEF.

Control Number: 25-A-592-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-13

Poster Board Number: 13

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: USE OF SODIUM GLUCOSE COTRANSPORTER TYPE 2 INHIBITORS IN PATIENTS WITH HEART FAILURE WITH PRESERVED EJECTION FRACTION AND CHANGES IN ATRIAL STRAIN MEASUREMENT ON TRANSTHORACIC ECHOCARDIOGRAM

Author Block: David Chiliquinga, Luigi Gabrielli, Pontificia Universidad Católica de Chile, Santiago, Chile

Background: Among the clinical guidelines for the management and treatment of patients with heart failure and preserved ejection fraction, the use of sodium glucose cotransporter 2 inhibitors (SGLT-2 inhibitors) has become a standard of care. The goal is to evaluate whether this family of drugs achieves a reduction in left ventricular filling pressures, generating improved diastolic function, by assessing these changes using atrial strain.

Methods: Prospective, pilot study. Participants were patients hospitalized at the Clinical Hospital of the Pontifical Catholic University of Chile between October 2024 and March 2025 with symptoms or signs of heart failure and an initial transthoracic echocardiogram consistent with heart failure with preserved ejection fraction. They subsequently received an SGLT-2 inhibitor as part of their therapy and were followed up 30 days after discharge with a repeat transthoracic echocardiogram.

Results: Twenty patients participated the Wilcoxon signed-rank test indicates a significant difference between PSAP mmHg in patients after the administration o SGLT2 inhibitors and PSAP mmHg Basal (p-value=0.0166), with the pairing of measurements being highly effective (Spearman's

$r=0.9535$, $p<0.0001$); and also indicates a statistically significant difference between SGLT2 and Basal TAPSE with a p-value of 0.0273 with pairing of measurements being highly effective (Spearman correlation coefficient of 0.8004; $p <0.0001$). Regarding the analysis of the atrial strain a wave; the results show a significant difference between strain measurements in the left atrium (SGLT2 vs. Basal) using a paired t-test (p-value 0.0107). The mean difference is -0.5293 (confidence interval of 95% -0.9136 and -0.1449). And Wilcoxon signed-rank test shows a statistically significant difference between the atrial strain s wave (SGLT2 vs. Basal) with a p-value of 0.0005. The test also indicates that the median difference between the two groups is 0.840 (Spearman's $r = 0.3431$, $p = 0.0693$).

Conclusion: The use of SGLT-2 inhibitors in patients with Heart Failure with Preserved Ejection Fraction shows early changes (30 days) in diastolic function, assessed by atrial strain.

Control Number: 25-CCC-593-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-14

Poster Board Number: 14

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HEART FAILURE AND ELECTRICAL INSTABILITY AS EARLY MANIFESTATIONS OF AL AMYLOIDOSIS WITH CARDIAC INVOLVEMENT

Diego A Vargas Hernández, Laura Tatiana Gómez, Mateo Gomez, Lina

Author Block: Murcia, Efrain Gomez, Fundación clínica Shaio, Bogota, Colombia, Fundación Santa Fe de Bogota, Bogota, Colombia

Background: Cardiac amyloidosis is an underrecognized and often underdiagnosed form of infiltrative cardiomyopathy. Among its subtypes, light chain (AL) amyloidosis is associated with plasma cell dyscrasias and typically presents with multisystem involvement and a poor prognosis. Clinical manifestations may include heart failure with preserved ejection fraction (HFpEF), arrhythmias, and constitutional symptoms. Timely diagnosis is critical for improving outcomes.

Case: A 69-year-old woman with no known cardiovascular history, under surveillance for monoclonal gammopathy of undetermined significance (MGUS) since 2022, presented with progressive dyspnea, orthopnea, and presyncope. The electrocardiogram revealed junctional rhythm and complete right bundle branch block. Cardiac biomarkers were elevated, with positive troponin and markedly increased NT-proBNP levels. Transthoracic echocardiography showed concentric left ventricular hypertrophy, preserved left ventricular ejection fraction (73%), and diastolic dysfunction. Cardiac magnetic resonance imaging demonstrated findings compatible with cardiac amyloidosis. Holter monitoring documented sinus pauses exceeding 6 seconds requiring permanent pacemaker implantation.

Laboratory workup confirmed a monoclonal component: serum and urine immunofixation were positive for IgG lambda, with a free light chain ratio (FLC ratio) ≥ 100 .

Decision-making: Clinical, electrocardiographic, echocardiographic, and laboratory findings suggest AL amyloidosis with cardiac involvement. The presence of conduction abnormalities, severe diastolic dysfunction with hypertrophy in the absence of hypertension, and evidence of a monoclonal gammopathy fulfilled SLiM-CRAB criteria (including abnormal FLC ratio and end-organ damage). A bone marrow biopsy and abdominal fat pad biopsy were performed, both confirming AL amyloidosis.

Conclusion: AL amyloidosis should be considered in patients presenting with HFpEF, common and uncommon conduction abnormalities, and evidence of a monoclonal gammopathy. Early recognition and a multidisciplinary approach are essential to modify disease progression and improve prognosis.

Control Number: 25-A-606-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-15

Poster Board Number: 15

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CORRELATION OF OXYGEN PULSE WITH STROKE VOLUME IN PATIENTS WITH HEART FAILURE AND REDUCED EJECTION FRACTION UNDERGOING CARDIOPULMONARY EXERCISE TESTIN

EDUARDO NOEL Camey Wong, Jorge Antonio Lara Vargas, Julieta Danira Morales Portano, Jesus Ricardo Perez Castellanos, Guadalupe Baltazar

Author Block: Reyes Robledo, Ivanhoe Arellano Bernal, Miguel Angel Balbuena Madera, Brenda Montserrat Alvarez Perez, Emmanuel Landeros Hermosillo, Centro Medico Nacional 20 de Noviembre ISSSTE, Ciudad de Mexico, Mexico

Background: During a cardiopulmonary exercise test with respiratory gas analysis (CPET), Oxygen Pulse is determined as the result of the ratio of VO₂ (oxygen consumption) to heart rate and stroke volume measured by echocardiography. In patients with reduced left ventricular ejection fraction (LVEF), both measurements may be related and show greater accuracy in assessing hemodynamic function.

Abstract Body: **Methods:** The aim of this study was to determine the correlation of Oxygen Pulse (measured during exercise testing with expired gas analysis) with stroke volume (measured by echocardiography during the test) in patients with heart failure and reduced LVEF. An analytical cross-sectional study was proposed. During the initial and peak phases of the CPET, Oxygen Pulse was determined by measuring respiratory gases and stroke volume by echo. The correlation was calculated using Pearson's correlation.

Results: The analysis was performed on a population of 30 patients of which 73.3% (22) were men and 26.6% (8) women. The mean age was 60.9

years (+2.18). Of the total patients, 53.3% (16) had a diagnosis of arterial hypertension, 43.3% (13) had type 2 diabetes, 16.6% (5) had hypothyroidism, 13.3% (4) had some degree of obesity and 30% (9) had a history of alcohol consumption. The correlation between maximum Oxygen Pulse and maximum Stroke Volume measured by echocardiography during the exercise test was moderate and statistically significant ($r=0.50; p=0.004$).

Conclusion: The correlation between maximum oxygen pulse and maximum stroke volume measured by echocardiography during exercise testing in patients with heart failure and reduced LVEF was moderate and statistically significant.

Control Number: 25-A-610-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-16

Poster Board Number: 16

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PEAK ATRIAL LONGITUDINAL STRAIN FOR THE PREDICTION OF HEART FAILURE READMISSION AND DEATH IN PATIENTS WITH ACUTE DECOMPENSATED HEART FAILURE

Author Block: Xochitl Ortiz Leon, EDITH LILIANA POSADA MARTINEZ, Jose Antonio Arias Godinez, Veronica Ruiz Esparza, Juan Francisco Fritch Salazar, Hugo Gerardo Rodriguez Zanella, Instituto Nacional de Cardiologia Ignacio Chavez, MEXICO, Mexico

Background: Acute decompensated heart failure (ADHF) is associated with high morbidity and mortality. Peak atrial longitudinal strain (PALS) is a novel parameter that might be useful for risk stratification.

Methods: We aimed to evaluate the association of PALS with cardiac death, death and heart failure readmission in patients presenting with ADHF

Abstract Body: Patients admitted for ADHF were prospectively enrolled, a comprehensive echocardiogram was performed including left atrial strain at admission.

Patients were followed up for readmission or mortality

Results: Sixty patients were included (26 % female, median age 59 years); 38.3% were diabetic, 45% hypertensive and 18% had atrial fibrillation. The mean LVEF was $32\% \pm 13.6\%$, GLS 7.7 ± 3.3 and PALS 14.4% (3-39). After a median follow up of 467 days, 29 patients were readmitted for heart failure (55%), 17 patients died (28.3%) and 10 (16%) died from cardiovascular causes. Patients who died from cardiovascular causes had lower LVEF 24 ± 8.3 vs $33.9 \pm 13.8\%$ ($p<0.033$), lower GLS 5.5 ± 2.1 vs 8.1 ± 3.3 ($p<0.022$)

and lower PALS 7.2 (4-14) vs 17 (3-39) % ($p < 0.002$). A cut-off value of 12% showed a sensitivity of 72% and a specificity of 90% for predicting cardiovascular death. After multivariate analysis PALS remained independently associated with cardiovascular death, OR 0.83 (CI 0.72-0.98 $p < 0.019$)

Conclusion: In patients with ADHF, PALS is independently associated with higher risk of cardiovascular death or readmission for heart failure. A value < 12% has the potential to improve risk stratification in patients with ADHF. Our results are consistent with previous evidence supporting PALS as a robust prognostic marker.

Control Number: 25-CCC-612-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-17

Poster Board Number: 17

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FROM VIRUS TO FAILURE: POST-COVID MYOCARDITIS AND HEART FAILURE IN AN ADOLESCENT

Author Block: María Robles, Rogelio Argueta, Mádelyn Raquel Valle Ramos, RODOLFO Gutiérrez, Hospital Roosevelt, Guatemala, Guatemala

Background: Viral myocarditis is a significant cause of acute heart failure in children and adolescents. Its association with COVID-19 has gained clinical and epidemiological relevance in recent years.

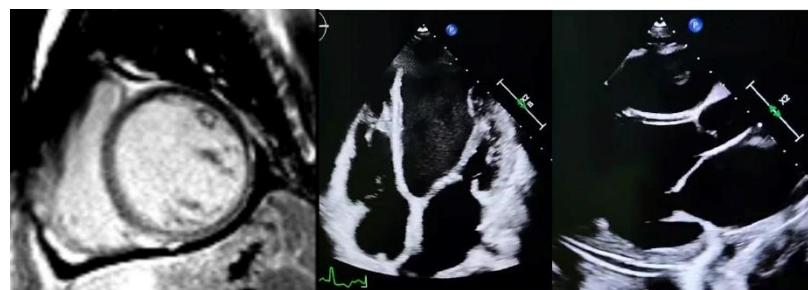
Case: A previously healthy 13-year-old female presented with progressive dyspnea, palpitations, and hypotension one month after a confirmed SARS-CoV-2 infection. She had no prior COVID-19 vaccination. She exhibited tachycardia, hypotension, pulmonary rales, and peripheral edema.

Abstract Body: Transthoracic echocardiogram showed a dilated cardiomyopathy with eccentric hypertrophy, severely reduced left ventricular ejection fraction (LVEF 25%) and severe mitral regurgitation. NT-proBNP was markedly elevated at 15,340 pg/mL. COVID-19 PCR was negative. Cardiac magnetic resonance imaging revealed non-ischemic late gadolinium enhancement consistent with myocarditis.

Decision-making: The patient was managed with intravenous diuretics and inotropic support (dobutamine), followed by initiation of guideline-directed medical therapy for heart failure. She also participated in cardiac rehabilitation.

Conclusion: Post-COVID myocarditis may present as acute heart failure in

adolescents without prior comorbidities. Cardiac imaging is essential for diagnosis and treatment guidance. This patient experienced progressive improvement, achieving NYHA class II status with NT-proBNP reduction to 311 pg/mL. Early recognition and intensive, multidisciplinary management are key to functional recovery.



Control Number: 25-A-613-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-18

Poster Board Number: 18

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CONDUCTION SYSTEM PACING IN PATIENTS WITH HEART FAILURE AND REDUCED LEFT VENTRICULAR EJECTION FRACTION: A CASE SERIES

Author Block: Claudia D. Sánchez-Serrano, Vania L. Marroquín-Cortés, Yoram Amalek Diaz Lazo, Jesús Antonio Viana Rojas, Jaime Rivera Figueroa, Mario Alberto Ornelas Casillas, Jesús Adrián Gutiérrez Alarcón, Gerardo Payro Ramirez, National Institute of Medical Sciences and Nutrition Salvador Zubirán, Mexico City, Mexico

Background: Heart failure with reduced ejection fraction (HFrEF) is associated with conduction abnormalities that impair ventricular function. Many patients need pacemakers due to sinus node dysfunction or atrioventricular block. Traditional right ventricular pacing may induce dyssynchrony, worsening cardiac performance. Conduction system pacing (CSP) has emerged as an alternative by improving synchrony. This case series describes our experience with CSP in HFrEF patients.

Abstract Body: **Methods:** This retrospective series included 11 HFrEF patients treated with CSP. Clinical, ECG, and echocardiographic data were reviewed before and after pacemaker implantation. A positive response was defined as a $\geq 15\%$ reduction in ESV. Statistical analysis was done using R software (v4.3.3).

Results: The median age was 63 years. CSP was achieved via selective His bundle pacing in 81.8% of cases. Half the patients showed a favorable echocardiographic response. Responders had higher baseline LVEF, lower EDV and ESV, and longer QRS duration. They also had more pronounced QRS

narrowing (-50 ms vs. -20 ms). During a median follow-up of 17 months, only one non-responder experienced acute heart failure.

Conclusion: Conduction system pacing in HFrEF patients significantly reduced left ventricular volumes and showed a trend toward improved LVEF. Notably, QRS narrowing may help identify likely responders, warranting further investigation.

TABLE 1. Comparison based on post-implant clinical response

Clinical characteristic	Non-responders (n=4)	Responders (n=4)	P
Age (years)	52.5 (39.5-61.2)	70.5 (56.7-75.5)	0.2
Sex (male)	1 (25.0)	3 (75.0)	0.48
Diabetes mellitus	1 (25.0)	1 (25.0)	1.0
Hypertension	1 (25.0)	4 (100.0)	0.14
Ischemic heart disease	2 (50.0)	1 (25.0)	1.0
NYHA class baseline			0.42
I	0 (0.0)	2 (50.0)	
II	3 (75.0)	2 (50.0)	
III/IV	1 (25.0)	0 (0.0)	
LVEF baseline (%)	30.5 (4.3)	41.7 (6.6)	0.03
LV-EDV baseline (mL)	163.5 (147.7-205.5)	141.5 (123.7-163.5)	0.68
LV-ESV baseline (mL)	115.5 (102.0-145.5)	87.5 (67.0-107.0)	0.2
Electrocardiogram baseline			0.48
RBBB	2 (50.0)	1 (25.0)	
LBBB	1 (25.0)	3 (75.0)	
Other	1 (25.0)	0 (0.0)	
QRS duration baseline (ms)	140 (140-145)	160 (155-160)	0.24
Implant device type			0.14
Pacemaker	1 (25.0)	4 (100.0)	
Defibrillator	3 (75.0)	0 (0.0)	
LVEF post (%)	30.2 (5.5)	43.7 (6.7)	
LV-EDV post (mL)	175.0 (162.7-206.5)	110.0 (94.0-116.5)	0.05
LV-ESV post (mL)	119 (105.7-151.2)	52 (51.5-62.0)	0.05
QRS duration post (ms)	120 (115-130)	105 (95-112.5)	0.23
NYHA class post			0.30
I	0 (0.0)	3 (75.0)	
II	2 (50.0)	1 (25.0)	
III/IV	2 (50.0)	0 (0.0)	
Heart failure or death	1 (25.0)	0 (0.0)	1.0
Follow-up (months)	19.5 (13.2-24.5)	15.0 (7.2-24.2)	1.0

LVEF: Left Ventricular Ejection Fraction; LV-EDV: Left Ventricular End-Diastolic Volume; LV-ESV: Left Ventricular End-Systolic Volume; RBBB: Right Bundle Branch Block; LBBB: Left Bundle Branch Block.

Control Number: 25-A-620-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-19

Poster Board Number: 19

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EFFECTS OF VERICIGUAT ON CARDIAC FUNCTION AND CLINICAL OUTCOMES IN HEART FAILURE: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS AND COHORT STUDIES

Demian Casanova Campos, Alejandro Godínez Tarin, Mario A. Verber

Author Block: Arano, Daniel A. Obeso León, Francisco Ramos Pillado, Julio A. Haro Adame, Universidad Autónoma de Baja California, Tijuana, Mexico

Background: Vericiguat, a soluble guanylate cyclase stimulator, has been proposed as adjunctive therapy for patients with heart failure (HF). While its role in reducing natriuretic peptides is established, its clinical benefits across functional and structural outcomes remain unclear. This systematic review and meta-analysis aimed to assess the effects of vericiguat on clinical outcomes, cardiac function, biomarkers, and quality of life.

Methods: We searched PubMed, Cochrane, and Embase (until April 30, 2025) for randomized controlled trials (RCTs) and observational cohorts evaluating vericiguat (2.5-10 mg/day) versus placebo in HF patients. Outcomes included all-cause mortality, cardiovascular mortality, major adverse cardiovascular events (MACE), HF hospitalizations, left ventricular ejection fraction (LVEF), LV end-systolic volume index (LVESVI), NT-proBNP, high-sensitivity CRP, troponins, and Kansas City Cardiomyopathy Questionnaire Clinical Summary Score (KCCQ-CSS). RCTs were pooled using a Mantel-Haenszel random-effects model; cohort studies were narratively synthesized.

Results: Nine studies were included (5 RCTs, 6,057 patients; 4 cohorts, 674

Abstract Body:

patients). Median follow-up was 14.8 weeks (RCTs) and 47.7 weeks (cohorts). In RCTs, vericiguat showed no significant effect on all-cause mortality (RR 1.02, 95% CI 0.62-1.68), CV mortality (RR 1.09, 95% CI 0.44-2.69), MACE (RR 0.85, 95% CI 0.49-1.44), HF hospitalizations (RR 0.90, 95% CI 0.66-1.23), or adverse events (RR 0.99, 95% CI 0.97-1.01). No significant improvement in KCCQ-CSS was observed (MD 2.17, 95% CI -6.47 to 10.81). In 2 RCTs, LVEF increased (+3.2%) and LVESVI decreased (-3.8 mL/m²), but changes were nonsignificant between groups. In 3 cohorts, LVEF improved (+4.3% to +6.4%), LVEDD decreased (-4.4 mm to -7.7 mm), and NT-proBNP decreased in all cohorts. Two cohorts showed significant reductions in hs-CRP and troponin I ($p<0.05$).

Conclusion: Vericiguat showed no clear benefit on mortality or hospitalizations in RCTs. However, functional and biochemical improvements were observed in cohort studies and selected trials. These findings support further investigation of vericiguat in specific HF phenotypes.

Control Number: 25-CCC-622-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-20

Poster Board Number: 20

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SJOGREN'S SYNDROME AND INVERTED TAKOTSUBO: THE IMPACT OF STRESS AND AUTOIMMUNITY ON THE HEART

Author Nishly Alejandra De La Luz-Solorzano, Sarai Betsabe Velarde, JUAN JOSE OROZCO, Victor Manuel Trejo Rolon, Sanatorio del Carmen Hospital, **Block:** Ensenada, Mexico, Autonomous University of Baja California, Ensenada, Mexico

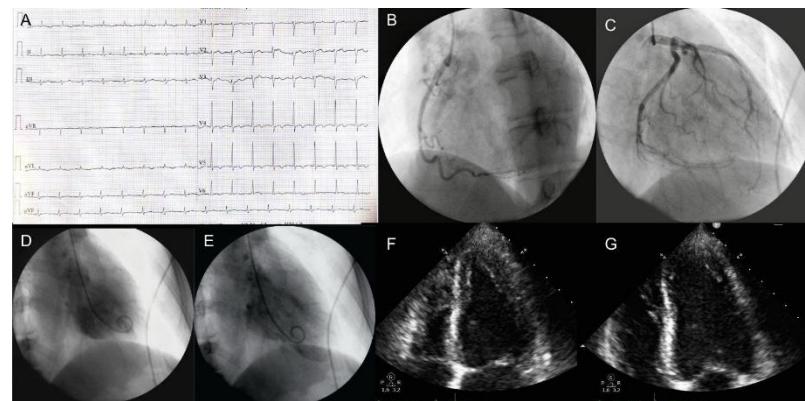
Background: Takotsubo cardiomyopathy is a reversible dysfunction of the left ventricle that clinically mimics acute coronary syndrome in the absence of coronary obstruction. Its inverted variant is rare and may be associated with autoimmune diseases such as Sjögren's syndrome.

Case: We report the case of a 55-year-old woman with a history of Sjögren's syndrome who presented inverted Takotsubo cardiomyopathy followed by emotional stress manifested as a heart infarct. Electrocardiogram demonstrated T-wave inversions in leads V4-V6, I and aVL. Serial troponin I levels increased from 1,159 to 3,957 pg/mL. Transthoracic echocardiography revealed a Left Ventricular Ejection Fraction of 58%, with basal hypokinesia and apical hypercontractility. Coronary angiography showed no significant coronary artery disease. Left ventriculography identified an inverted Takotsubo pattern with a sac-like formation in the inferior wall, suggestive of either an aneurysm or a diverticulum.

Decision-making: The patient was managed conservatively and demonstrated a favorable clinical course. Emotional stress and autonomic

imbalance, potentiated by the underlying autoimmune condition, were considered key triggering factors.

Conclusion: Inverted Takotsubo cardiomyopathy should be included in the differential diagnosis of acute coronary syndrome, particularly in postmenopausal women with autoimmune diseases. Prompt recognition and diagnosis are crucial for appropriate management and favorable outcomes.



Control Number: 25-A-624-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-21

Poster Board Number: 21

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PLASMA- EXTRACELLULAR VESICLES MICRORNAS EXPRESSION LEVELS FROM PATIENTS WITH INDETERMINATE SUBJECTS AND CHRONIC CHAGASIC CARDIOMYOPATHY.

Author Block: Martha Ballinas, Mario Peña, Eduardo Martínez, Luis Amezcua, Amada Álvarez, Ana Mejía, Fausto Sánchez, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Chagas disease is caused by *Trypanosoma cruzi*, which presents an intense inflammatory injury and induces fibrosis in tissues and organs. This illness occurs in the acute, indeterminate, and chronic phases. During the chronic phase, if this disease is not treated in time, it can damage the heart muscle tissue, leading to chronic chagasic cardiomyopathy (CCC). One of the mechanisms of communication between host and parasite is through extracellular vesicles (EVs) that play an important role as mediators of cellular communication and can be an excellent study model for tracking molecules such as microRNAs with a potential role as biomarkers for early disease detection. This performance evaluated miR-21, miR-146a, and miR-155 expression levels in the indeterminate subjects and patients with CCC.

Methods: EVs were isolated from plasma, and total RNA was extracted. The miR-21, miR-146a, and miR-155 expression levels were quantified using qRT-PCR.

Results: Our results revealed a significant overexpression of miR-146a in the indeterminate subjects compared to patients CCC.

Abstract Body:

Conclusion: MiR-146a could be an early indicator of progression towards CCC.

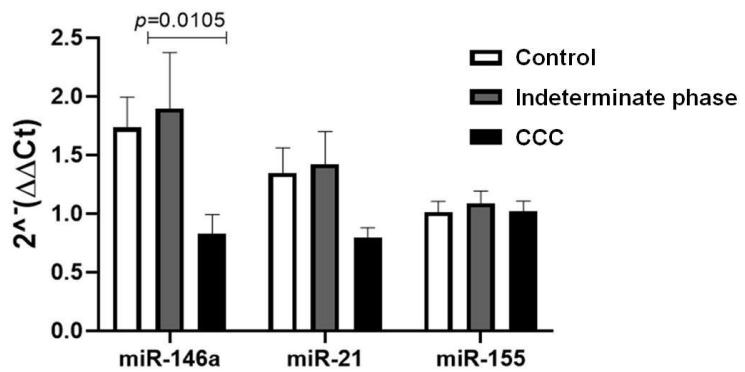


Fig. 1 MiRNA expression of EVs in the indeterminate phase and CCC. miRNA expressions of EVs were normalized to cel-miR-39.

Control Number: 25-CCC-627-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-22

Poster Board Number: 22

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HYPERTROPHIC CARDIOMYOPATHY MIMICKING ACUTE CORONARY SYNDROME WITH VENTRICULAR ARRHYTHMIA: THE IMPORTANCE OF DIFFERENTIAL DIAGNOSIS

Author Jorge Manuel Bonilla Castañeda, Carlos A. Dattoli Garcia, Annie C. Atencio
Block: Silva, Hospital General de Puebla "Dr. Eduardo Vázquez N.", Puebla, Mexico

Background: A 74-year-old male with a history of type 2 diabetes and rheumatoid arthritis

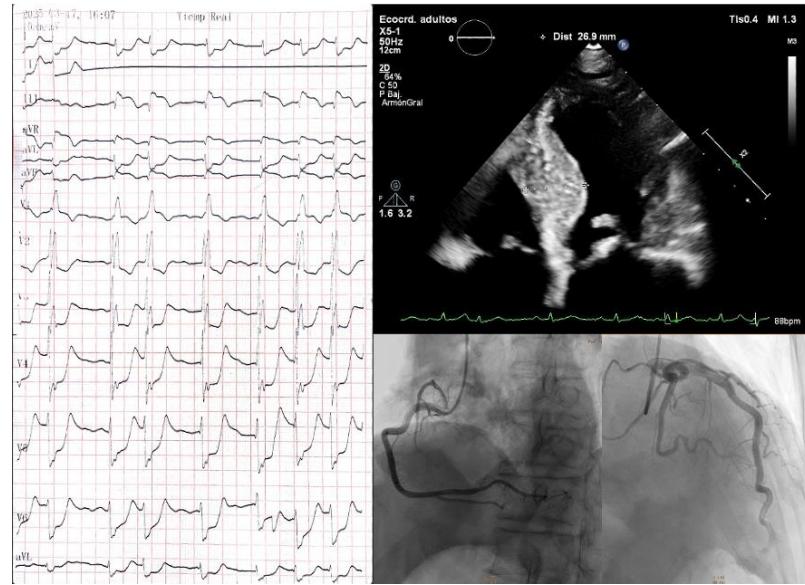
Case: Presented to the emergency department with retrosternal chest pain radiating to the left arm after physical exertion, accompanied by adrenergic symptoms and a syncopal episode. Monomorphic ventricular tachycardia with hemodynamic instability was documented, and successful electrical cardioversion was performed at 120 J. The post-cardioversion ECG showed ST segment elevation in lead aVR with widespread ST-segment depression in other leads. Troponin I was elevated (5.41 ng/mL), suggesting high-risk non-ST elevation acute coronary syndrome (NSTE-ACS).

Decision-making: Coronary angiography revealed diffuse ectasia and slow flow in all three coronary arteries, without significant obstruction or thrombus. Transthoracic echocardiography demonstrated asymmetric septal hypertrophy (septal thickness of 27 mm), with no left ventricular outflow tract obstruction (maximum gradient of 6 mmHg) and severe left atrial enlargement. Medical management was initiated, and before discharge, an implantable cardioverter-defibrillator (ICD) was placed

Abstract Body:

without complications.

Conclusion: This case highlights the importance of considering differential diagnoses in patients with suspected NST-ACS, a rare but high-risk condition. With appropriate diagnostic tools, accurate diagnosis and timely treatment can significantly improve prognosis.



Control Number: 25-CCC-634-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-23

Poster Board Number: 23

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PATIENT WITH HFPEF AND UNEXPLAINED HYPERTROPHY

Author Block: Luis Madrigal, Abel Salvador Becerra Flores, Hector E. Flores Salinas, Diego Armando Gudiño Amezcua, Tatiana Chantal Castro de la Torre, IMSS, Guadalajara, Mexico

Background: HFpEF accounts for 50% of all heart failure cases. The prevalence of cardiac amyloidosis in patients with HFpEF is around 16%.

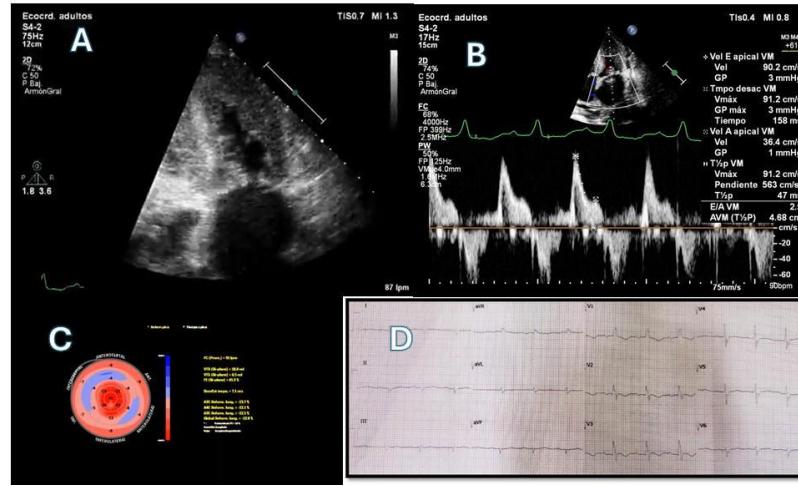
Case: An 80-year-old female patient with generalized weakness, lower extremity edema, and hypotension. Her medical history was significant for hypothyroidism, with no known cardiovascular disease. She had a 60-year history of smoking. Upon admission, clinical findings included grade II jugular venous distension, positive hepatojugular reflux, and ventricular gallop. Lung auscultation was unremarkable. Lower extremity edema extended up to the mid-calf. Laboratory results showed: high-sensitivity troponin of 369 ng/mL and NT-proBNP of 16,900 pg/mL.

Decision-making: The patient reported a 15-kg weight loss, bendopnea, and orthopnea. ECG showed complete right bundle branch block, first-degree AV block, and low voltage. TTE revealed concentric LV remodeling with bright echotexture, preserved systolic function (LVEF 72%), grade III diastolic dysfunction, and small pericardial effusion. Findings suggested cardiac amyloidosis. Serum and urine tests for light chains were positive.

Conclusion: Patients with HFpEF represent a diagnostic challenge due to

their clinical presentation. In this case, the history of hypothyroidism, weight loss, electrocardiographic findings, red flags on echocardiogram, and serum/urinary evidence of light chains strongly point toward a suspicion of cardiac amyloidosis.

Images: A) Two-chamber view showing left atrial enlargement relative to the ventricle, with concentric hypertrophy and bright, granular echotexture. B) Continuous Doppler showing diastolic dysfunction with an E/A ratio of 2.5 and a deceleration time of 158 ms. C) Bull's-eye plot displaying a "Japanese flag" pattern with preserved apical strain. D) ECG showing low voltages, first-degree AV block, and right bundle branch block.



Control Number: 25-CCC-635-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-24

Poster Board Number: 24

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: DILATED CARDIOMYOPATHY DUE TO FILAMIN C MUTATION

Author Block: Ivonne Flores Garcia, Luis Raul Cano del Val Meraz, Bernardo Guerrero Del Moral, PEMEX, Ciudad de México, Mexico

Background: A 47-year-old male with NYHA functional class deterioration from I to II, holosystolic murmur in the mitral focus, intensity III/VI, and tricuspid intensity III/VI. Dilated cardiomyopathy and severe pulmonary hypertension at 38 years of age.

Case: Diagnostic approach Serology for Chagas disease and viral serology (HIV, HCV, HBV, and CYTOMEGALOVIRUS), nonreactive. NCMR: severe SD (LVEF 14%), multiple areas of late enhancement with a non-ischemic pattern suggestive of fibrosis. ECOTT: dilated cardiomyopathy, LVEF 25%.

Abstract Body: DD type III. Severe Carpentier I mitral regurgitation, intermediate probability of PAH. Coronary angiography: no lesions in epicardial arteries. Ventriculography: generalized hypokinesia with an estimated LVEF of 15%. Right catheterization: combined postcapillary and precapillary pulmonary hypertension. Reduction in PVR with 100% Fio2 of 16.1%. Reduction in PVR with Iloprost of 18.4%. Stress test to evaluate O2 consumption: maximum oxygen consumption of 30.2 ml/kg/min, 7.59 mets, NYHA I. Genetic study: Positive in heterozygous, affects splicing in the FLNC gene, long arm of chromosome 7 region 7q32.1.

Decision-making: Implantable cardioverter-defibrillator. Amiodarone, Sacubitril/valsartan, Carvedilol, Dapagliflozin, Spironolactone,

Chlorthalidone, Furosemide, Ivabradine. In heart transplant protocol.

Conclusion: Mutations in filamin C are associated with different types of cardiomyopathies, with truncating variants predominating in dilated cardiomyopathy. FLNC have a high incidence of malignant ventricular tachyarrhythmias (43%) and frequent progression to end-stage heart failure (50%). Men are at higher risk compared to women. Early diagnosis of this disease could alter patient management and prognosis.

Control Number: 25-CCC-637-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-25

Poster Board Number: 25

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: UNCOMMON STRESSOR, UNUSUAL OUTCOME IN TAKOTSUBO CARDIOMYOPATHY: FISH BONE INGESTION AS A CAUSE?

Author Edgar Gordoa-Sobrado, Lissette Haydee García-Mena, Hospital General Regional con Medicina Familiar No. 1 "Lic Ignacio García Tellez", IMSS, Cuernavaca, Morelos, Mexico, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Takotsubo cardiomyopathy accounts for approximately 2% of suspected acute coronary syndrome cases and is defined by transient, reversible ventricular dysfunction.

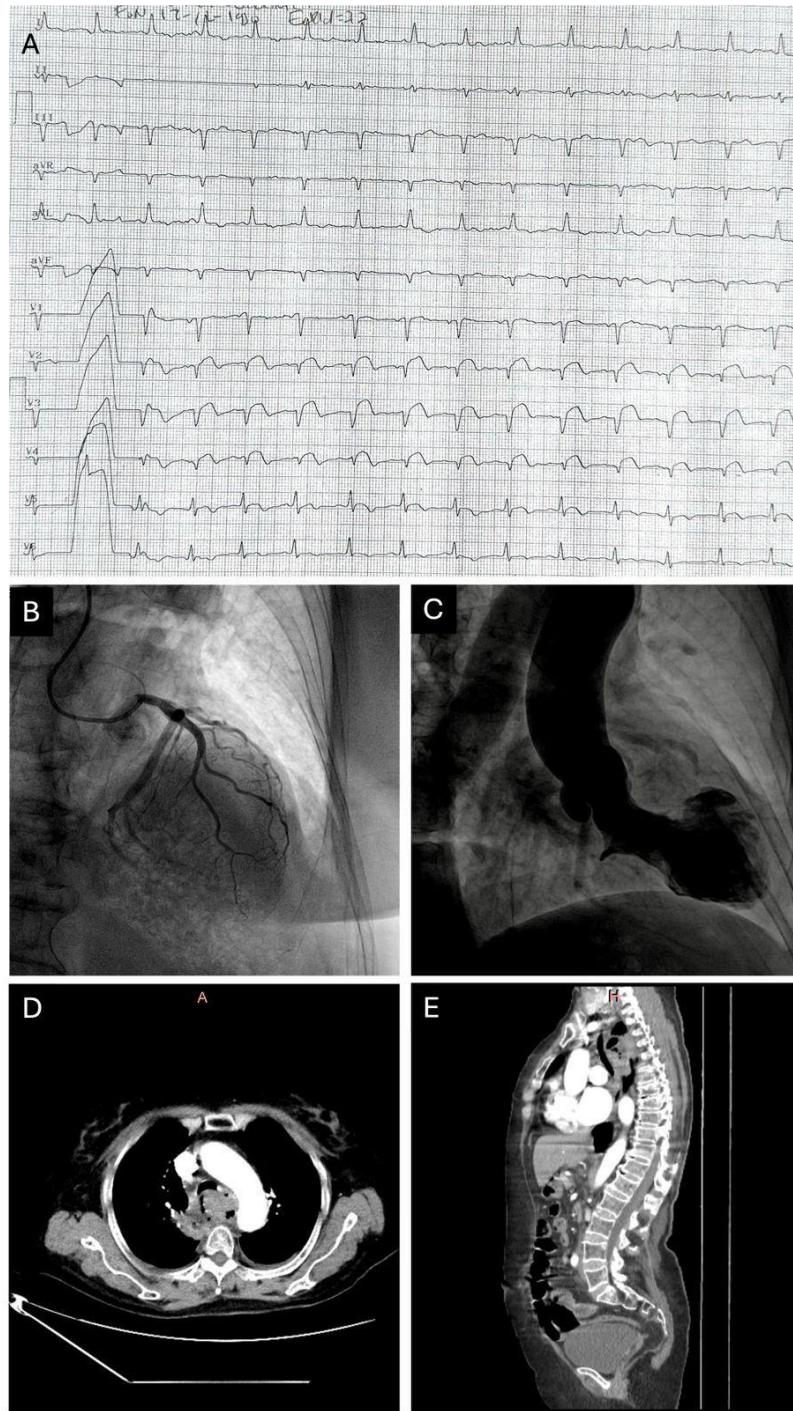
Case: A 72-year-old woman with a 20-year history of well-controlled hypertension presented to the ER with oppressive chest pain and a history of fish bone ingestion one week prior. ECG demonstrated ST-segment elevation from leads V1 to V6 (A). Labs showed leukocytosis (22.42%), elevated pro-BNP (9,636 pg/mL), D-dimer >5.0 µg/L, and normal troponins. An echocardiogram was performed, revealing apical dyskinesia suggestive of apical Takotsubo cardiomyopathy with LVEF of 32% y GLS-9.0. Consequently, coronary angiography was conducted showing no obstructive lesions (B). Left ventriculography confirmed apical Takotsubo (C). Further evaluation with CT angiography revealed a mediastinal abscess and esophageal perforation (D) and (E).

Decision-making: The patient was transferred to a tertiary care center, where mediastinal washout was performed. Hospitalization was

complicated by pulmonary thromboembolism, managed successfully with anticoagulation. At 12-week follow-up, transthoracic echocardiography demonstrated complete resolution of Takotsubo cardiomyopathy, with LVEF 64% and GLS -15.4%

Conclusion: In patients with acute cardiac symptoms, a detailed history and thorough evaluation are crucial to identify the underlying cause. Common

presentations may mask conditions like Takotsubo syndrome.



Control Number: 25-CCC-638-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-26

Poster Board Number: 26

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: ACUTE PERICARDITIS WITH ATYPICAL EVOLUTION TOWARDS INVASIVE ASPERGILLOSIS IN A CARIBBEAN ISLAND

Author Block: Ingrid Herrera, Carla Comarazamy, Esperanza Dotel, aracelis gomez, III, Eunice Cid, SR, Pura M. Henriquez, Hospital General de la Plaza de la Salud, Dsitrito Nacional, Dominican Republic

Background: Aspergillus pericarditis (AP) is a rare fungal infection that affects heart and pericardium more common in immunosuppression patients making diagnosis challenging and high mortality

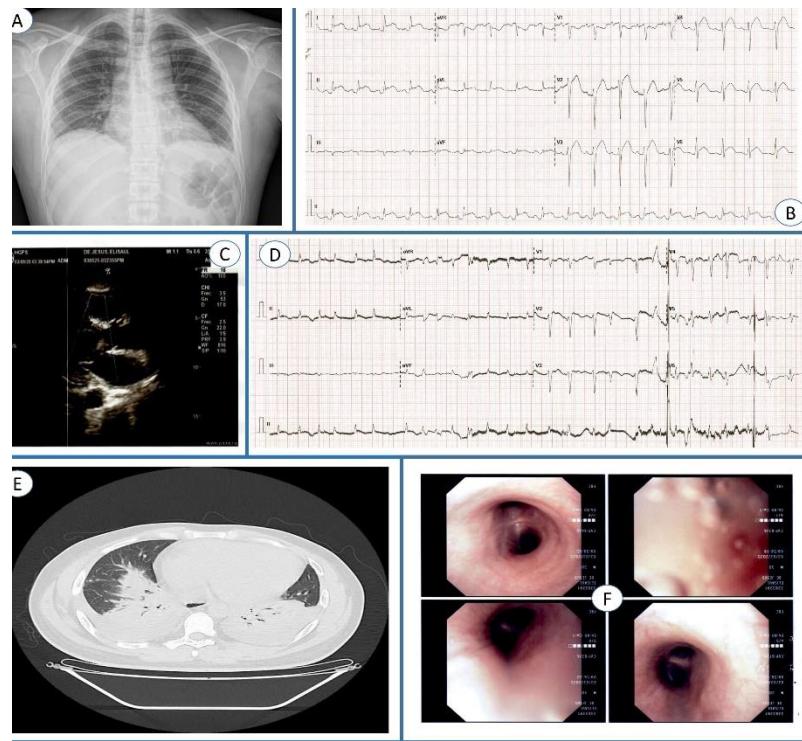
Case: A 30-year-old male worker in a public hospital archives presented oppressive posterior chest pain radiating to the anterior chest 8/10, accompanied by fever and cough. Physical examination revealed a pericardial friction rubs on auscultation, HR 110 bpm, BP 120/70, Chest x-ray normal (Fig. A), ECG ST elevation DI, DII, AVL, V2-v6 (Fig. B), troponin 65.1 ng/ml, echocardiogram revealed hyperrefrингent pericardium and minimal effusion EF 70% (Fig. C) consistent with pericarditis Indometacin was initiated

Decision-making: 3th day of admission the patient developed respiratory distress and AF unstable (Fig. D) needing electric cardioversion 6 times. Chest CT revealed pneumonia (Fig. E). A bronchoscopy revealed whitish discharge (Fig. F). Serum galactamannan and bronchoalveolar lavage were positive for Aspergillosis Voriconazole was started. 21 days later he was discharged with non-cardiovascular symptoms

Abstract

Body:

Conclusion: AP has a poor prognosis, early diagnosis improves the prognosis, progression, and reduces the risk of mortality



Control Number: 25-CCC-645-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-27

Poster Board Number: 27

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: SYNCOPES AND HEART FAILURE IN A PATIENT WITH A GIANT ATRIAL MYXOMA: THE IMPACT OF MULTIDISCIPLINARY MANAGEMENT

Author Ingrid Carolina Rojas Chaverra, Sergio Gómez Olarte, Exarith Valencia, Juan Andrés Sarmiento, Carlos Álvarez Tamara, Germán Molina Marroquín,
Block: Clínica Universitaria Colombia, Bogotá, Colombia, Fundación Universitaria Sanitas, Bogota, Colombia

Background: Myxomas are the most common benign cardiac tumors.

Though often asymptomatic, they can cause heart failure or syncope.

Surgery is the definitive treatment to prevent complications

Case: A 55-year-old man with no cardiovascular history presented with syncope after air travel and progressive dyspnea, worsening from NYHA I to III over 3 months. Pulmonary embolism was ruled out; troponin was positive without delta. TTE showed a PFO with left-to-right shunt and a large (46 x 35 mm), mobile, gelatinous left atrial mass prolapsing into the LV, compressing the anterior mitral leaflet and causing dynamic LVOT obstruction (gradient 35 mmHg). Other findings: biatrial enlargement, PASP 100 mmHg, mild pericardial effusion, and tricuspid regurgitation. NT-proBNP >3000; LVEF 57%. Catheterization showed mPAP 66 mmHg, no coronary disease

Decision-making: Diagnosis: left atrial myxoma with decompensated heart failure (Stevenson B). Urgent surgery was performed. CPB time: 44 min; cross-clamp: 31 min. A 5 x 6 cm friable mass was excised, attached by a 1.5 cm base near the mitral annulus. Post-op TEE: no residual mass or mitral

Abstract Body:

disease. Histology: 4 × 4 cm myxoma (calretinin+, S100/CD68 focal)

Conclusion: Atrial myxomas can cause serious complications. Early diagnosis and timely resection are essential



Control Number: 25-A-655-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-28

Poster Board Number: 28

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CORRELATION BETWEEN AI AND EXPERT ASSESSMENT OF LEFT VENTRICULAR EJECTION FRACTION IN A SECOND LEVEL HOSPITAL IN MEXICO

Author Block: Marcos Daniel Marcos Ramirez, Gladis Faustino Maravilla, Emilio Solano Flores, Jose E. Perez Nieto, Centro Medico Nacional 20 de Noviembre, ISSSTE., Mexico City, Mexico

Background: This study aims to evaluate the correlation between conventional left ventricular ejection fraction (LVEF) measurement and LVEF assessment using artificial intelligence (AI).

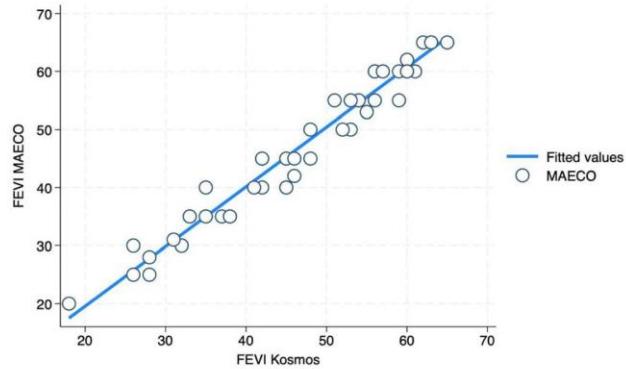
Methods: A retrospective, cross sectional study was conducted in patients with or without heart failure. LVEF was first measured by a cardiologist using conventional echocardiography, then reassessed the same day using the AI based KOSMOS system (EchoNous), with no clinical intervention between evaluations. For the analysis, the dependent variable was the expert derived LVEF, while the independent variable was the AI generated LVEF. The correlation between both measurements was assessed using Pearson's correlation coefficient, complemented by Lin's concordance correlation coefficient to evaluate both precision and accuracy between the two methods. Statistical analysis was performed using STATA version 19.0 B/E.

Results: Pearson's correlation coefficient was $r= 0.979$ ($p < 0.001$), reflecting a strong linear relationship between the measurements. A concordance coefficient of 0.977 was obtained, with a 95% confidence interval ranging

Abstract Body:

from 0.966 to 0.989, indicating a high level of agreement between both methods. This result was statistically significant ($p < 0.001$).

Conclusion: These findings demonstrate strong correlation between expert derived LVEF and AI generated LVEF. This supports the use of automated tools as a complementary or alternative method in the functional assessment of the left ventricle.



Concordance correlation coefficient (Lin, 1989, 2000):

ρ_c	$SE(\rho_c)$	Obs	[95% CI]	P	CI type
0.977	0.006	54	0.966 0.989	0.000	asymptotic
			0.962 0.987	0.000	z-transform

Pearson's $r = 0.979$ $Pr(r = 0) = 0.000$ $C_b = \rho_c/r = 0.998$
 Reduced major axis: Slope = 1.051 Intercept = -2.068

Control Number: 25-CCC-700-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-29

Poster Board Number: 29

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: WHEN CARDIAC ARREST CHALLENGES THE DIAGNOSIS: A COMPLEX POST-HEART TRASPLANT CASE

Josemaria Cruz Leon, Amada B. Alvarez Sangabriel, Carlos A. Guizar Sanchez, Francisco M. Baranda Tovar, Daniel Manzur Sandoval, Juan C. De la Fuente Mancera, Maria del Refugio Aguilar Serrano, Diana L. Mondragon Bustamante, Luis E. Hernandez Badillo, Juan M. Vazquez Sanchez, Jorge L. Valderrabano Cruz, Andrea P. Alarcon Rangel, Cesar Martinez Medrano, Antonio Jordan Rios, National Institute of Cardiology Ignacio Chavez, Mexico City, Mexico

Background: 59-year-old male with diabetes, ischemic heart failure (LVEF 14%), and CABG history (2022).

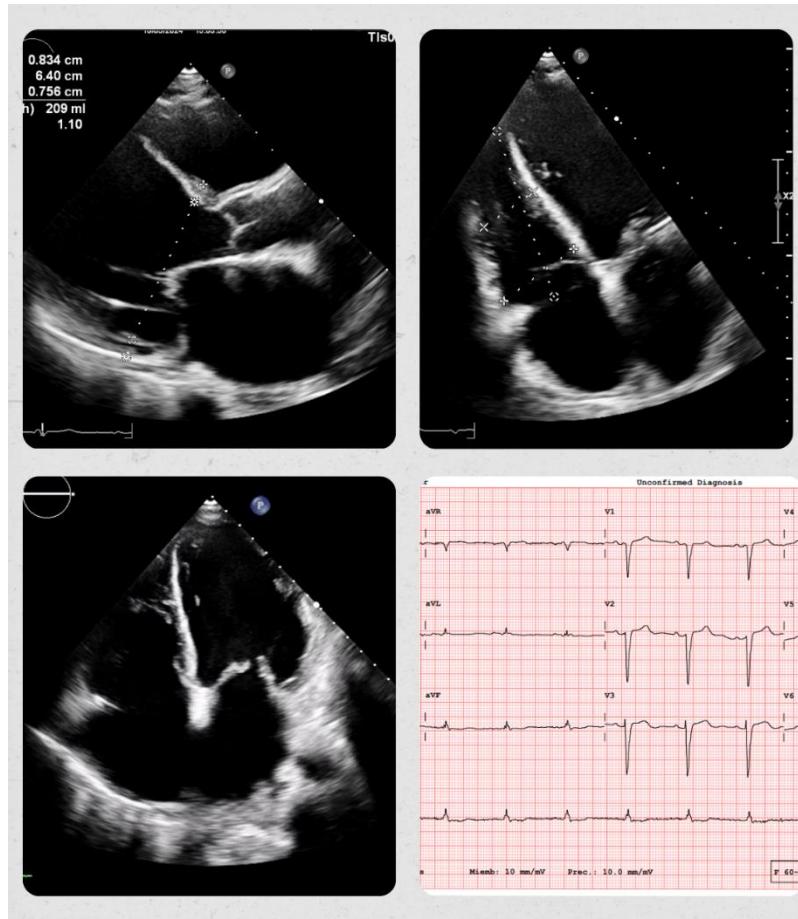
Case: On November 28, 2023, the patient presented with progressive dyspnea and chest pain. He was diagnosed with right pleural effusion and severe systolic dysfunction (LVEF 12%) with NT-proBNP of 9,277 pg/ml.

Abstract Body: Thoracentesis evacuated 780 ml, followed by pleurodesis, improving symptoms. On December 29, 2023, he developed severe dyspnea, crackles, hypoxemia (pO₂ 54) mmHg), and clinical decline. Cardiac catheterization revealed chronic coronary occlusions. Despite treatment, he remained hemodynamically unstable. Echocardiography showed dilated chambers, severe dysfunction, and moderate mitral/tricuspid regurgitacion.

Decision-making: Due to refractory cardiogenic shock and lack of coronary revascularization options, an orthotopic bicaval heart trasplant was

performed. Postoperatively, he suffered cardiorespiratory arrest, requiring ECMO. Angiography ruled out pulmonary embolism and coronary occlusion; biopsy showed no acute rejection.

Conclusion: This case highlights the importance of accurate differential diagnosis in early post-transplant patients presenting with cardiorespiratory arrest. It is essential to promptly rule out coronary occlusion, pulmonary embolism, and acute rejection. Despite appropriate management and timely evaluation, diagnosis and early intervention remain crucial to improve outcomes in these complex clinical scenarios.



Control Number: 25-CCC-744-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-30

Poster Board Number: 30

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: VENTRICULAR THROMBUS AND REFRACTORY SHOCK IN A NEGLECTED DISEASE: A CASE OF END-STAGE CHAGAS CARDIOMYOPATHY

Azalea H Leon Tovar, Alejandra Cuevas Fernández, Adela P. Mackinlay

Author Gutierrez, Centro Médico Nacional 20 de Noviembre, ISSSTE., Mexico City,
Block: Mexico, Facultad Mexicana de Medicina, Universidad La Salle, Mexico City, Mexico

Background: Chagas disease remains a frequent cause of non-ischemic dilated cardiomyopathy in Latin America. Its course may remain silent for decades before progressing to advanced heart failure.

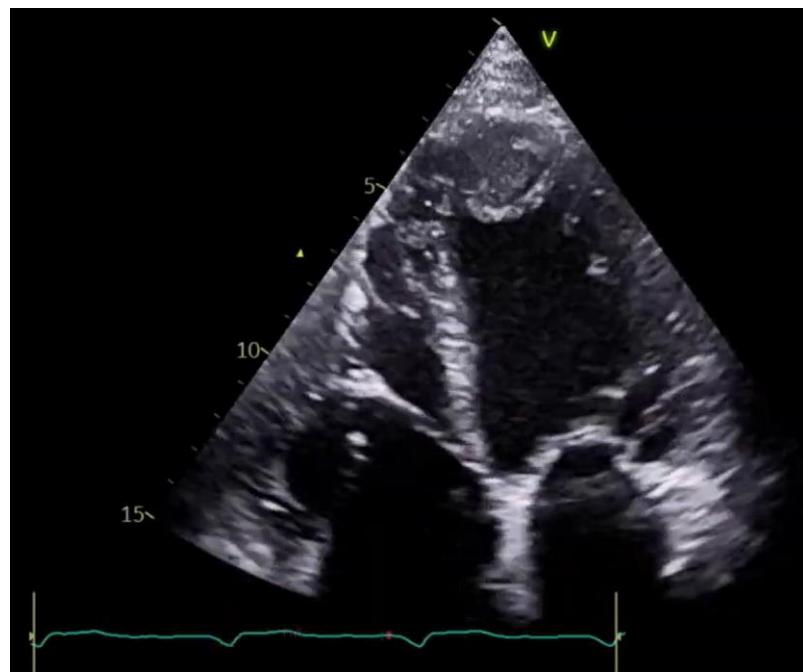
Case: A 69-year-old man with Chagas disease diagnosed 31 years ago, previously treated with antiparasitic drugs. He is a pacemaker recipient due to AV block and has been under treatment for heart failure with reduced ejection fraction, remaining stable for years until he developed progressive edema two months prior to admission. Was admitted with decompensated heart failure and cardiogenic shock, requiring two vasopressors without response. Troponin I was 225 ng/L, and proBNP was 235,774 pg/mL. Echocardiogram revealed a left ventricular ejection fraction of 25%, cardiac output of 1.8 L/min, strain of -8%, biventricular dysfunction, and a 20×23 mm apical thrombus. Anticoagulant therapy was initiated.

Decision-making: Hospitalization was complicated by pneumonia and acute kidney injury, developing mixed shock. Levosimendan was added as a third agent, with partial effect. Despite maximal support, progressed to

Abstract Body: edema two months prior to admission. Was admitted with decompensated heart failure and cardiogenic shock, requiring two vasopressors without response. Troponin I was 225 ng/L, and proBNP was 235,774 pg/mL. Echocardiogram revealed a left ventricular ejection fraction of 25%, cardiac output of 1.8 L/min, strain of -8%, biventricular dysfunction, and a 20×23 mm apical thrombus. Anticoagulant therapy was initiated.

multiorgan failure.

Conclusion: This case illustrates decompensated terminal Chagas cardiomyopathy with thrombus, resulting in biventricular dysfunction and hemodynamic collapse. Despite triple vasopressor therapy, severe structural damage limited efficacy. It is essential to strengthen Chagas prevention strategies, follow-up, and evaluation of heart transplant in the advanced stages.



Control Number: 25-CCC-761-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-31

Poster Board Number: 31

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: RARE COMBINATION OF HYPERTROPHIC CARDIOMYOPATHY STATUS POST SEPTAL MYECTOMY, QUADRICUSPID AORTIC VALVE WITH MODERATE REGURGITATION AND COMPLETE ATRIOVENTRICULAR BLOCK REQUIRING PERMANENT PACEMAKER IN A YOUNG FEMALE PATIENT

Ramiro Villavicencio Martínez, Victor José Leal, Alejandra Aguilar, Ricardo Leopoldo Barajas Campos, Aldo H. Santoyo Saavedra, Luis D. García

Author Rosales, Carlos J. Merino Ramírez, José Alfredo Delgado Cruz, SR, Jose E. **Block:** Zúñiga Espinosa, Denisse M. Tovar Rubio, Nestor R. Barrientos Guzman, INSTITUTO NACIONAL DE CARDIOLOGÍA IGNACIO CHAVEZ, Ciudad de México, Mexico

Background: Hypertrophic cardiomyopathy (HCM) can present with left ventricular outflow tract (LVOT) obstruction and may require surgical septal myectomy in refractory cases. Coexistence with a quadricuspid aortic valve (QAV) is extremely rare.

Case: A 40-year-old woman with obstructive HCM underwent septal myectomy and right coronary artery bypass grafting (CABG) in 2002. Postoperatively, she developed complete atrioventricular (AV) block requiring implantation of a permanent dual-chamber pacemaker. At follow-up, she remained in New York Heart Association (NYHA) functional class I. Follow-up transthoracic echocardiograms (TTE) showed preserved left ventricular ejection fraction (LVEF) and absence of LVOT gradient. In addition, a QAV with moderate aortic regurgitation (AR), classified as type B

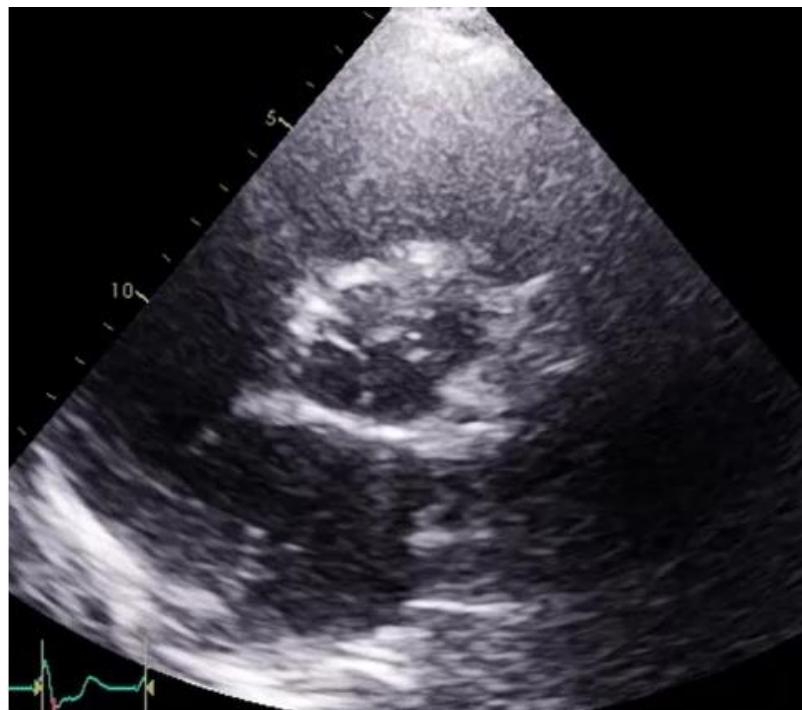
Abstract

Body:

according to the Hurwitz-Roberts classification, was identified.

Decision-making: This case highlights a rare intersection of structural heart disease. Post-myectomy AV block with pacemaker dependence can affect synchrony and long-term function. QAVs are often asymptomatic but can progress to significant AR. Their detection in adulthood emphasizes the importance of comprehensive and detailed imaging during follow-up.

Conclusion: This case illustrates a rare overlap of congenital and acquired heart disease with favorable long-term clinical outcome, highlighting the importance of individualized follow-up and imaging surveillance in patients with complex cardiovascular conditions.



Aortic valve evaluated in the short axis view at the level of the great vessels. Image obtained in early systole, showing four cusps.

Control Number: 25-A-775-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-32

Poster Board Number: 32

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: WHEN IRON HURTS THE HEART: RISK FACTORS FOR CARDIOMYOPATHY IN HEMOCHROMATOSIS

Author Block: mariana Troncoso Ortega, Zulma Yurith Vázquez Ortiz, Gerardo Marín Márquez, Diego Reyes Castro, Gerardo Payró Ramírez, Instituto Nacional De Ciencias Médicas y Nutrición Salvador Zubirán, Ciudad de México, Mexico

Background: Iron overload cardiomyopathy is a leading cause of mortality in hemochromatosis. Early identification of cardiac involvement is challenging. This study aimed to identify risk factors for heart failure in patients with primary and secondary hemochromatosis.

Methods: A retrospective case-control study was performed at a national referral center. Adults diagnosed with hemochromatosis (2011-2024) were included. Cases had clinical heart failure and cardiac iron overload ($T2^* < 20$ ms). Controls had no heart failure. Clinical, biochemical, and echocardiographic variables were analyzed to identify risk factors.

Results: Among 43 patients, 67.4% had secondary and 32.6% had primary hemochromatosis. Heart failure was found in 39.5%, mostly with preserved ejection fraction. Significant associations included >35 transfusions (median), serum ferritin $> 2,700$ ng/mL, transferrin saturation $> 75\%$, absence of chelation therapy, and comorbid diabetes or hypertension. Most cases showed abnormal left atrial volume, strain, and restrictive filling patterns. $T2^* < 20$ ms was a strong predictor.

Conclusion: Multiple transfusions, high ferritin, elevated transferrin

Abstract Body:

saturation, and lack of chelation are strong risk factors for heart failure in hemochromatosis. Early use of cardiac imaging (strain, T2*) may improve screening and management in high-risk patients.

Control Number: 25-CCC-790-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-33

Poster Board Number: 33

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: TAKAYASU ARTERITIS: A DIAGNOSTIC CHALLENGE IN THE ELDERLY WITH RENOVASCULAR HYPERTENSION

Author Block: Veronica C. Rodriguez-Esparza, XOCITL ARELY ORTIZ-LEON, Juan F. Fritch-Salazar, Jose A. Arias-Godinez, Edith L. Posada-Martinez, Maria E. Ruiz-Esparza, Alejandra Robles-Nava, Juan J. Acosta-Castor, Hugo Rodriguez-Zanella, National Institute of Cardiology Ignacio Chávez, MEXICO CITY, Mexico

Background: Takayasu's arteritis (TA) is a rare form of large-vessel vasculitis. Predominantly affects young women, often presenting with nonspecific symptoms that complicate diagnosis.

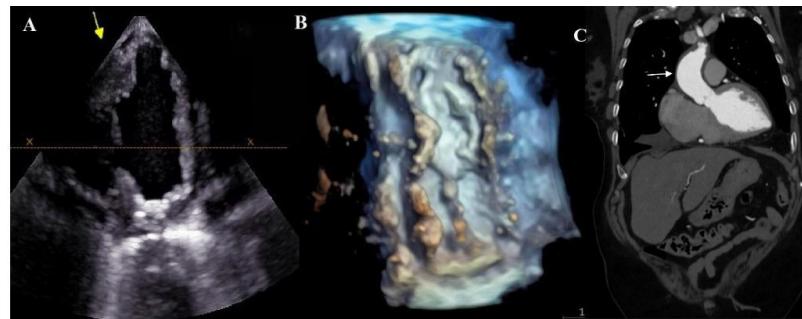
Case: A 71-year-old female with a history of rheumatoid arthritis, long-standing arterial hypertension, and lower extremities claudication was admitted for acute kidney injury. Physical examination revealed an abdominal bruit, and a blood pressure difference between both arms 170/100 mmHg and 140/90 mmHg. Kidney Doppler revealed a "tardus parvus" spectral waveform, suggesting proximal arterial stenosis. Transesophageal echocardiogram demonstrated concentric intimal thickening in the ascending segment of the aorta and the aortic arch (A and B). CT imaging revealed diffuse concentric intimal thickening involving the aortic arch, extending to the celiac trunk, superior mesenteric artery, and renal arteries (C), corroborating the diagnosis of TA.

Decision-making: The patient underwent renal angioplasty, and

Abstract Body:

glucocorticoid therapy was initiated; however, the clinical response was limited due to delayed diagnosis. Its clinical presentation is usually nonspecific and underscoring the importance of recognizing subtle vascular findings.

Conclusion: TA, remains a diagnostic challenge and multimodal imaging is critical for evaluating vascular involvement. Early recognition through clinical vigilance and imaging is essential to initiate timely treatment and prevent irreversible vascular injury.



Control Number: 25-A-808-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-34

Poster Board Number: 34

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CONVERSION FROM ATRIOPULMONARY TO TOTAL CAVOPULMONARY FONTAN: AN ALTERNATIVE IN THE MANAGEMENT OF FONTAN CIRCUIT FAILURE

Katia Millaray Rivera, Rodrigo Vicente Gonzalez, Polentzi Uriarte, Daniel

Author Block: Springmuller, Francisca Arancibia, Anita Rubilar, Sofia Lay, Instituto Nacional del Tórax, Santiago, Chile

Background: The atriopulmonary Fontan (APF) operation was developed as a palliative strategy for patients with univentricular physiology. However, this technique exposes both the right atrium (RA) and the coronary sinus to a high-pressure system, which, in the long term, leads to significant RA enlargement, intracavitory thrombus formation, arrhythmias, rheological inefficiency with energy loss, and a decrease in the coronary perfusion gradient. In 1998, Mavroudis et al. reported the conversion from APF to TCPD with concomitant antiarrhythmic surgery and pacemaker implantation. This strategy was later applied in selected cases of Fontan failure, allowing for the postponement of cardiac transplantation.

Methods: Retrospective study of 7 patients who underwent Fontan conversion surgery between 2000 and 2022. Four were women, with a mean age of 32 years. A total of 86% had a diagnosis of tricuspid atresia with normally related great arteries, and all had a single left ventricular morphology. The indication for conversion was Fontan failure in all cases. One patient also had subaortic stenosis. Surgical technique involved intracardiac TCPD in 6 patients and extracardiac TCPD in one. All patients

Abstract Body: This study describes the outcomes of 7 patients who underwent conversion from atriopulmonary to total cavopulmonary Fontan (TCPD) surgery. The patients had a mean age of 32 years, with 4 being women. All had a single left ventricle and normally related great arteries. One patient also had subaortic stenosis. The indication for conversion was Fontan failure in all cases. The surgical technique involved intracardiac TCPD in 6 patients and extracardiac TCPD in one. All patients

underwent RA size reduction, right-sided Maze procedure, and implantation of an epicardial dual-chamber pacemaker. Subaortic stenosis resection was performed in one patient.

Results: Operative mortality was 29%. Among the survivors, with a mean follow-up of 13 years, current ages range from 38 to 51 years; 4 are in NYHA class I and 1 in class II. The mean pro-BNP level was 151 pg/ml, and all patients had oxygen saturation levels >90%. The most common long-term complication was arrhythmia. All surviving patients are socially and professionally integrated. Two of the women had planned, monitored pregnancies and delivered healthy children.

Conclusion: Conversion from APF to TCPD can improve functional class and quality of life in this complex patient population, albeit with an operative mortality close to 30%. It is important to remember that all Fontan procedures are palliative in nature; optimizing Fontan design serves only to extend the pre-transplant period.

Control Number: 25-A-590-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-35

Poster Board Number: 35

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: IMPACT OF FRACTIONAL FLOW RESERVE ON THERAPEUTIC DECISION-MAKING IN INTERMEDIATE LEFT MAIN CORONARY ARTERY LESIONS: A MULTICENTER ANALYSIS BY AGE

Emiliano Gómez Montañez, Yareli Lizbeth Rojas Salazar, Jorge Gustavo

Author Block: Rojas Salazar, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Mexico

Background: Intermediate stenosis of the left main coronary artery (LMCA) presents a clinical dilemma due to its critical territory and prognostic significance; in which fractional flow reserve (FFR) has emerged as a useful tool to assess lesion severity and guide revascularization decisions; however, data on how age may influence FFR-guided decision-making in LMCA lesions are limited. This study aimed to evaluate the clinical impact of FFR on therapeutic decisions in intermediate LMCA stenosis across different age groups.

Abstract Body: **Methods:** We conducted a retrospective multicenter study including patients with angiographically intermediate LMCA stenosis (40-70%) who underwent FFR assessment. Patients were stratified into three age groups: <60, 60-75, and >75 years. The primary endpoint was the rate of change in initial treatment strategy (medical therapy vs. revascularization) based on FFR findings, and secondary endpoints included rates of percutaneous coronary intervention (PCI), coronary artery bypass grafting (CABG), and 1-year major adverse cardiac events MACE.

Results: A total of 150 patients were included. FFR led to a change in

management strategy in 54.6% of cases. In the >75 group, a significantly higher proportion of patients were deferred from revascularization based on non-ischemic FFR values ($p<0.01$), and despite there were more conservative management in older patients, there was no significant difference in 1-year MACE rates between age groups. CABG was more frequently performed in younger patients, while PCI was preferred in older ones when revascularization was indicated.

Conclusion: FFR significantly impacts therapeutic decision-making in intermediate LMCA lesions, in which age appears to influence treatment choices following FFR, with older patients more often managed conservatively without compromising short-term outcomes. These findings support the use of FFR as a personalized decision-making tool in LMCA disease.

Control Number: 25-CCC-607-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-36

Poster Board Number: 36

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: TGA CORRECTED WITH MUSTARD TECHNIQUE: DOUBLE BAFFLE STENOSIS AS A LATE COMPLICATION, SUCCESSFULLY TREATED WITH STENT ANGIOPLASTY

Christian Guillermo Tapia Cervantes, Jesús Alberto Blanco Hernández, Romina Daniela Pérez Domínguez, Monserrath Basilio Téllez, Ana Alarcón

Author Block: Martínez, Jonathan Reyes-Rivera, Karla Alejandra Pupiales Dávila, Carla Domínguez, Andrea Magdalena Luna Hernández, Jorge Sanchez, Stephanie Angulo, Edgar Garcia Cruz, Instituto Nacional de Cardiología, Ciudad de México, Mexico

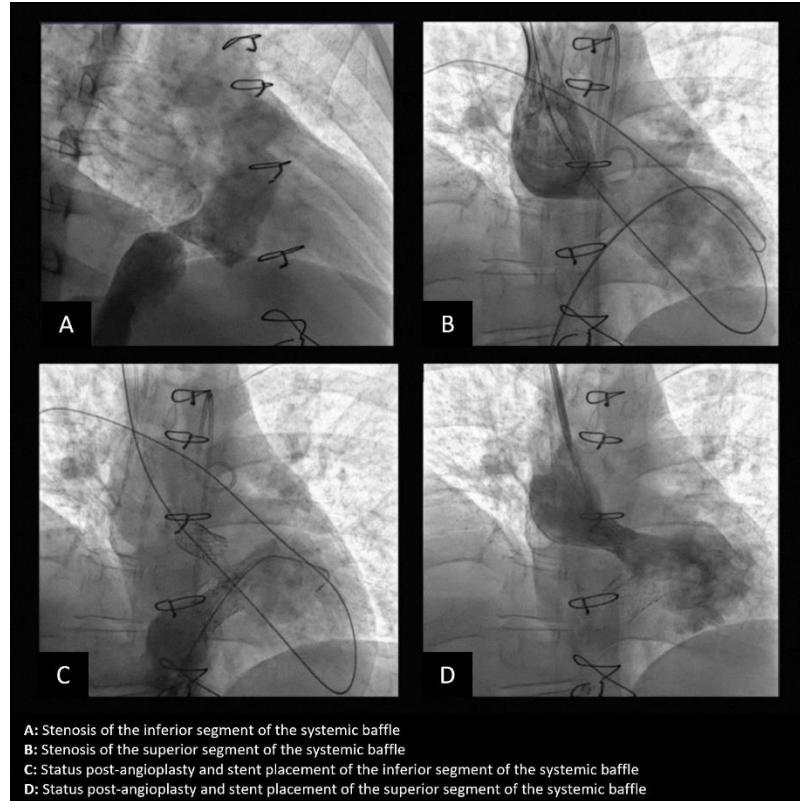
Background: Although largely replaced by the arterial switch (Jatene) procedure, the Mustard technique remains a viable alternative in cases of transposition of the great arteries (TGA) with complex anatomy. Its long-term complications, such as baffle stenosis, pose significant diagnostic and therapeutic challenges.

Case: A 23-year-old male with a history of TGA surgically corrected in childhood via the Mustard procedure presented with progressive dyspnoea, palpitations, and hypoxia (SpO₂ 66%). CT angiography revealed severe stenosis in both segments of the systemic baffle, with signs of retrograde venous hypertension and impaired filling. A percutaneous intervention with stent placement was performed, resulting in clinical improvement.

Decision-making: Baffle obstruction occurs in up to 25% of patients post-Mustard and may present as venous congestion, arrhythmias, or right heart

failure. Given the high risk associated with surgical reintervention, stent angioplasty has become a well-established and effective therapeutic strategy. This case highlights its value in complex anatomical settings.

Conclusion: The Mustard procedure remains a valid option in select patients. Baffle obstruction is a serious yet treatable complication. In this case, percutaneous management avoided open-heart surgery and led to an improved quality of life.



Control Number: 25-A-651-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-37

Poster Board Number: 37

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: AI-BASED PHENOTYPING OF CORONARY ECTASIA: CLINICAL CLUSTERS AND THROMBOSIS PREDICTION BEYOND ANATOMICAL CLASSIFICATION

Author Block: jaime monroy, Miguel Agustín Bustamante, Centro medico ISSEMYM "Lic. Arturo Montiel Rojas", Metepec, Mexico

Background: Coronary ectasia (CE) is associated with thrombosis and adverse outcomes, but anatomical classifications like Markis offer poor risk stratification. We used explainable AI to identify clinical phenotypes and predictors of thrombotic risk.

Methods: We retrospectively analyzed 193 patients with angiographic CE (2018-2024). Unsupervised clustering (K-means, Gower), PCA/t-SNE, and SHAP-explained XGBoost and Random Forest models were applied to clinical and angiographic variables. Outcomes included angiographic thrombosis, in-hospital mortality, 30-day reinfarction, NYHA class worsening, thrombectomy, and need for mechanical support or triple antithrombotic therapy.

Results: Three clusters emerged: (1) diffuse multivessel CE (Markis I-II), with STEMI, thrombosis (68.4%), highest mortality (5.1%) and thrombectomy (15.8%); (2) focal CE (Markis III-IV) with lower risk (30.2% thrombosis, 0% mortality); and (3) an intermediate group. SHAP identified Markis class, STEMI, and multivessel disease as key predictors. XGBoost (AUC=0.75, sensitivity 72%, specificity 78%, NPV 84%, Brier 0.118) improved thrombotic risk prediction versus Markis alone (AUC=0.59). Thrombosis (p<0.01), thrombectomy (p=0.03), and triple therapy (p=0.04)

Abstract Body:

differed significantly between clusters. Reinfarction occurred in 2.1%, all preceded by thrombosis.

Conclusion: AI-based phenotyping revealed three CE subgroups with distinct thrombotic profiles not captured by anatomy alone. Diffuse CE with STEMI defines a high-risk phenotype with therapeutic implications. These findings support the integration of AI models into individualized antithrombotic strategies and prospective validation.

Control Number: 25-CCC-661-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-38

Poster Board Number: 38

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: MANAGEMENT OF PULMONARY ARTERY OBSTRUCTION BY PERCUTANEOUS INTERVENTION IN TAKAYASU 'S ARTERITIS

Author Block: Mónica Elizalde, Marco A. Mejia Hori, Instituto Mexicano del Seguro Social, Guadalajara, Mexico

Background: A 26 years old female presenting with headaches, recurrent episodes of epistaxis, syncope, dyspnea and a systolic murmur. Suggestive data of pulmonary hypertension during echocardiogram with further approach through percutaneous coronary intervention.

Case: A 26 years old female without previous known comorbidities. Presented in August 2023, frontal headaches that caused insomnia, dizziness and dyspnea with slight limitation of physical activity. Blurry vision, asthenia and adynamia were added in September 2023. In October

Abstract Body: 2023, the dyspnea worsens, presenting orthopnea and cough, as well as recurrent episodes of epistaxis. At physical examination, she presented deviation of the dorsum of the nose, along with systolic murmur, for which she was referred to cardiology and to rheumatology suspecting ANCA-associated vasculitis. Later, she suffered recurrent syncopal episodes requiring further inpatient cardiovascular approach.

Decision-making: This case presented itself as a therapeutic and diagnostic challenge due to severe pulmonary hypertension, right heart failure, as well as confirmed bilateral pulmonary artery stenosis caused by ANCA-associated vasculitis. The approach included echocardiography, cardiovascular tomography and right heart catheterization, detected high

pressure of both pulmonary artery branches, along with concentric arterial thickening, that suggested vasculitic inflammation. Considering the functional deterioration and syncopal episodes, therapeutic catheterization of the right heart was justified. To diminish the obstruction degree it was decided to implement a stent on the right pulmonary artery in place, looking to stabilize the right´s ventricle function and prevent further hemodynamic compromise.

Conclusion: Inflammatory arterial etiologies must be suspected when pulmonary artery hypertension is being approached. Invasive hemodynamic assessment is crucial when non-invasive imaging suggests pulmonary artery stenosis. Endovascular intervention can be considered in patients with critical vascular obstruction with severe symptoms regardless of the etiology.

Control Number: 25-CCC-729-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-39

Poster Board Number: 39

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: INFEROLATERAL LEFT VENTRICULAR ANEURYSM ONE YEAR POST-INFARCTION; AN UNEXPECTED FINDING

Author Block: Víctor Armando Pérez-Meza, Jorge Gómez-Reyes, Laura Leticia Rodríguez-Chávez, National Institute of Cardiology Ignacio Chávez, Mexico city, Mexico

Background: Left ventricular (LV) aneurysms complicate 0.2% of acute myocardial infarction (AMI) (31% anterior STEMI, 12% inferior). They are more common in women and typically appear in 1-3 months. The formation of chronic LV aneurysms after AMI occurs in 3-15% of cases.

Case: A 71-year-old man with a history of inferolateral STEMI (2023) treated with RCA stenting developed complete AVB and distal dissection. Follow-up revealed an LV aneurysm (54 x 42 mm) with thrombus and trivascular disease. The echocardiogram showed LVEF 38.2%, inferior/inferolateral aneurysm (150 ml), and thrombus. Angiography evidenced calcified left anterior descending artery (LAD), chronic circumflex occlusion, and RCA restenosis, Syntax 28.5.

Decision-making: Considering the lack of symptoms, the severe LAD calcification with high risk of angioplasty, viability absence, and the risk of a restrictive ventricle in case of aneurysmectomy, medical treatment was proposed by the heart team. He was discharged with dapagliflozin, sacubitril/valsartan, rosuvastatin/ezetimibe, spironolactone, clopidogrel, bisoprolol and apixaban. The patient remains asymptomatic, NYHA Class I, with good treatment adherence.

Abstract Body:

Conclusion: The decision for aneurysmectomy should be individualized, considering the risk. Surgical treatment is recommended for symptomatic patients, and nonsurgical treatment is suggested for asymptomatic patients. The cardiac team's approach prioritizes patient-specific outcomes and quality of life.

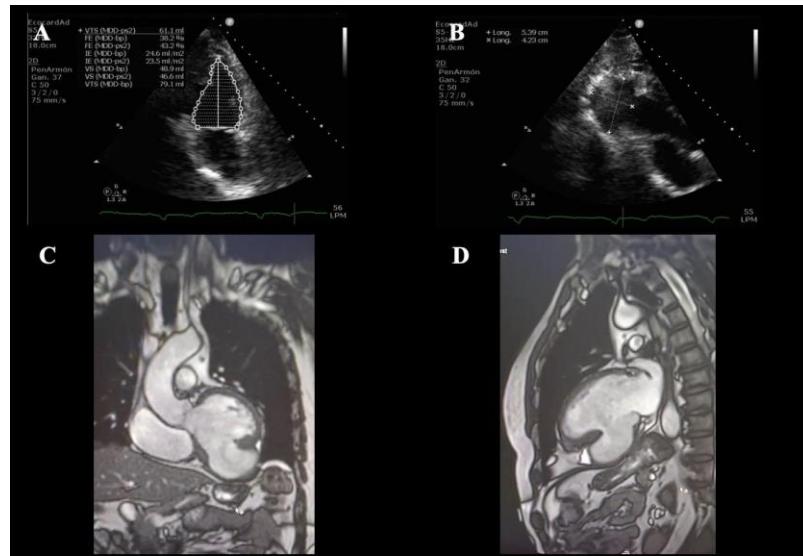


Image 1: Echocardiogram: A) Ejection fraction of 38.2%. B) Aneurysm dimensions of 54 x 42 mm. **MRI with aneurysm of the inferior and inferolateral wall of the left ventricle.** C) Frontal section. D) Sagittal section.

Control Number: 25-CCC-733-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-40

Poster Board Number: 40

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: ST ELEVATION MYOCARDIAL INFARCTION: CHALLENGES IN THE MANAGEMENT OF ACUTE DUAL CORONARY LESIONS

Author Block: BRYAN WALTER ANGULO GARCIA, Luis Antonio Inga Ayac, Flor Ibañez, Marcos Jauregui, JOSE ROBERTO MURILLO BETETA, Alberto Andre Torres Montero, SR, Hospital Nacional Edgardo Rebagliati Martins, Lima, Peru

Background: Dual coronary occlusion in ST-elevation myocardial infarction (STEMI) is rare and complex; comprehensive angiography is vital for detecting anomalies impacting treatment and prognosis.

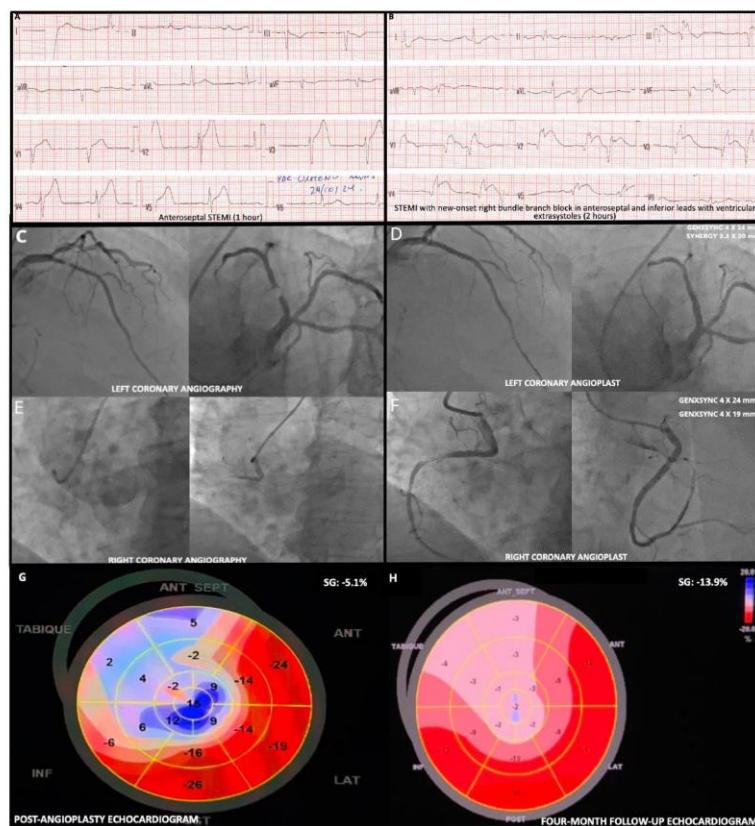
Case: An 81-year-old male with hypertension and gout presented with anteroseptal STEMI on the electrocardiogram (ECG) at one hour (Image A). Two hours later, the ECG showed new-onset right bundle branch block in the anteroseptal and inferior leads with ventricular extrasystoles (Image B). In the cath lab, initial cannulation of the right coronary artery (RCA) was difficult due to an anatomical variant. The left coronary artery (LCA) showed a subtotal occlusion of the proximal left anterior descending artery, successfully treated with two stents, TIMI III flow (Images C,D). Subsequently, with improved technique, the RCA was cannulated, revealing a high origin and a proximal total thrombotic occlusion (Image E).

Decision-making: The HEART TEAM decided on complete coronary revascularization due to the acute involvement of two arteries. Two proximal stents were implanted in the RCA, with TIMI III flow (Image F). The echocardiogram showed a left ventricular ejection fraction (LVEF) of 32%

Abstract Body:

with anterior and inferior hypokinesis. At four months, the LVEF improved to 45% with a notable clinical improvement (Images G,H).

Conclusion: Searching for multiple occlusions, complete revascularization, and coronary anomalies in acute infarction is crucial for successful management and improved prognosis.



Control Number: 25-A-736-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-41

Poster Board Number: 41

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PAINTING THE CANVAS OF ECUADORIAN ACUTE CORONARY SYNDROME: A CALL TO ACTION

Andres Arteaga, Jhinson Moreira, Mario Ochoa, Siza Alex, Carolina Yanez,

Author Block: Miguel Bayas, Carlos Lopez, AXXIS Hospital de Especialidades, Quito, Ecuador

Background: In Latin America, including Ecuador, the burden of cardiovascular disease and associated risk factors has risen significantly, yet data on acute coronary syndrome (ACS) remain scarce; limiting the identification of clinical practice gaps.

Methods: We conducted a cross-sectional study of patients with ACS who underwent PCI at our institution from January 2019 to December 2024. Data included demographics, risk factors, presentation, labs, imaging, angiography, in-hospital outcomes, and discharge therapies.

Abstract Body: **Results:** 123 patients were included, with mean age of 64 years; 75% male and 25% female. Prevalence of hypertension was 52%, sedentarism 51%, overweight 43%, alcohol use 42%, dyslipidemia 40%, diabetes 22%, tobacco use 18% and obesity 15%. Chest pain was the predominant symptom (85%). EKG findings revealed ST-segment elevation in 51%, T wave inversions 9% and ST-segment depression 7%. 91% were in Killip-Kimball Class I, 3% in Class II, 1% Class III, and 5% Class IV. The mean door-to-balloon time was 136 minutes. Echocardiography was performed in 60%, 87% demonstrating reduced left ventricular wall motion, 60% diastolic dysfunction, 34% mitral regurgitation and 31% tricuspid

regurgitation. Lipid panel was obtained in 39%, 45.8% had LDL-C \geq 116, 58.3% remnant cholesterol \geq 30, 44% triglyceride levels \geq 150, and 61% non-HDL cholesterol \geq 130. In patients with diabetes, HbA1c was measured in 50%, 50% having values \geq 8%. 5% of patients without diabetes were screened, with 80% having prediabetes. At discharge, statins were prescribed in 95%, DAPT in 88% and 5% with no antiplatelet therapy. In-hospital morbidity occurred in 31% (AKI 47%, heart failure 32% and cardiogenic shock 16%). Killip class >III and age $>$ 65 years were associated with increased in-hospital morbidity ($p < 0.05$). The mean length of hospital stay was 2.2 days. In-hospital mortality was reported in 0.8% of cases.

Conclusion: This study reveals a high burden of modifiable CVD risk factors and suboptimal control. It underscores the urgent need for structured risk assessment, chronic disease management, and timely secondary prevention in Ecuador's ACS population.

Control Number: 25-CCC-741-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-42

Poster Board Number: 42

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: SUCCESSFUL ENDOVASCULAR AORTOPLASTY FOR SEVERE COARCTATION OF THE AORTA DURING THIRD-TRIMESTER PREGNANCY IN A PATIENT WITH REFRACTORY HYPERTENSION

Author Ingrid Carolina Rojas Chaverra, Liliana Correa Pérez, Carlos Arias Barrera,
Block: Fabio René Fernández Velez, Ébalo Real Urbina, Clínica Universitaria Colombia, Bogotá, Colombia, Fundación Universitaria Sanitas, Bogotá, Colombia

Background: Aortic coarctation (CoA) is a congenital heart defect accounting for 5-8% of cases, with a reported prevalence in Colombia of 1.25-6.57 per 10,000 live births. During pregnancy, CoA is classified as WHO class III due to its high maternal morbidity and mortality risk (~35%). Endovascular correction may be necessary when severe hypertension or hemodynamic compromise is present

Abstract Body: **Case:** A 27-year-old pregnant woman (28.4 weeks) with a 2-year history of severe hypertension refractory to dual high-dose therapy was referred to a tertiary care center. Echocardiogram and CT angiography showed thoracic CoA with a peak gradient of 64 mmHg

Decision-making: The case was discussed in a multidisciplinary cardio-obstetrics team. Due to high hemodynamic risk, the decision was made to proceed with inpatient endovascular aortoplasty. Prior to the intervention, antihypertensive therapy was optimized and fetal lung maturation and neuroprotection were provided

Conclusion: Endovascular aortoplasty with CP-covered stent implantation was performed, reducing the gradient from 40 to 3 mmHg. The patient had an uneventful ICU stay and was discharged on aspirin and one antihypertensive. Follow-up with cardiology, maternal-fetal medicine, and interventional cardiology was arranged

ADJANY



Control Number: 25-CCC-745-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-43

Poster Board Number: 43

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: SINGLE CORONARY SYSTEM ORIGINATING FROM RIGHT CORONARY ARTERY PATIENT WITH SEVERE AORTIC STENOSIS

Author Block: Nelson Acosta, Aimee Flores, Oscar Ortega, Cleysi Galva, Edgar D. Cadena Barranco, Wilnelia Acosta, Esther Bueno, Maria Natividad Diaz Estrella, Jonathan Rodríguez, Luz Del Alba Javier, Johanny Liliana Bonilla Moya, ASOCIACION INSTITUTO DOMINICANO DE CARDIOLOGIA, Santo domingo, Dominican Republic

Background: The incidence of a single coronary artery is around 0.024% and usually doesn't have clinical repercussions. There 're not data on the long-term postoperative prognosis of aortic valve replacement in patients with a single coronary artery

Case: A 74-year-old woman with a history of severe aortic stenosis diagnosed 1 year ago and arterial hypertension. She reported dyspnea and dizziness and was referred from the cardiac surgery department to the cardiac cath Lab department for coronary angiography prior to valve replacement surgery. Physical examination revealed a mesosystolic aortic ejection murmur, intensity 3/6, radiating to the base of the neck and apex

Decision-making: Her echocardiogram shows a left ventricular ejection fraction of 71%. The aortic valve is trileaflet and calcified, with a mean gradient of 35 mmHg and a valve area of 0.8 cm². The coronary angiography shows a single dominant right coronary artery without left coronary artery. Angiotomography only observe the right coronary artery with vascular

Abstract Body:

vestiges towards the left ventricle. A biological valve was implanted in the aortic position. The aortic valve was highly calcified and was replaced with a Cardioprotese Ltda #21 coiled pericardium valve

Conclusion: The combination of severe aortic stenosis with the right coronary artery as the only vessel is a rare entity that complicates the clinical presentation and makes the postoperative prognosis uncertain. patient is evolving satisfactorily after valve replacement surgery

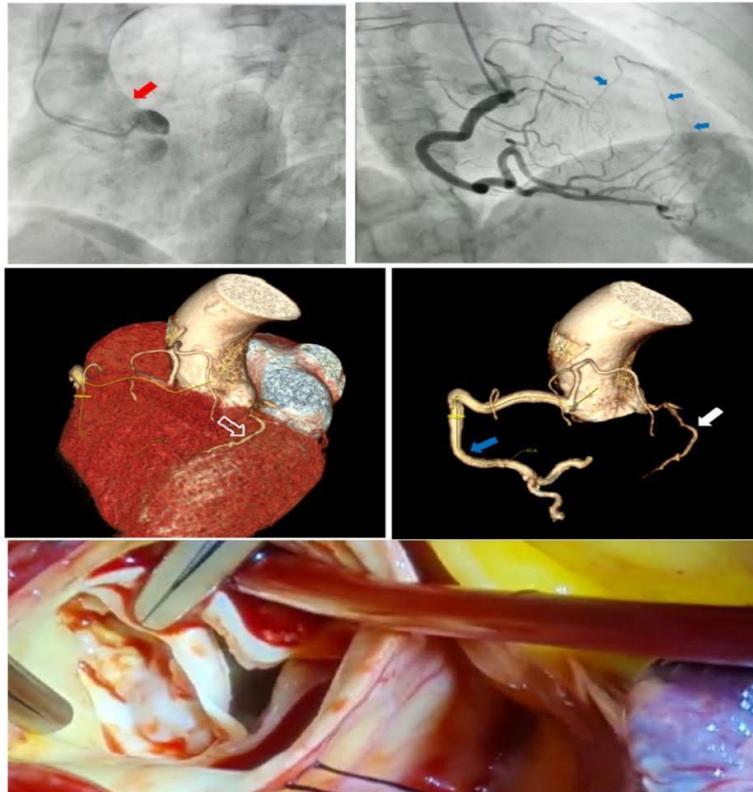


Figure 1- Coronary angiography and angiotomography showing the absence of the left main coronary artery and its branches. Image A shows the place where the ostium of the LMCA would be expected to be found (red arrow). Image B shows the RCA and its collateral branches that supply the LAD territory (blue arrows). Image C shows the short path covered by the traces of what would be an outline of the LAD (white arrow) in the volumetric reconstruction of the coronary angiotomography. Image D shows a well-developed CD, with 30% eccentric lesion (blue arrow). Image D is a trans-surgical photograph where the ostium of the LMCA is not observed, and a highly calcified aortic valve.

Control Number: 25-CCC-747-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-44

Poster Board Number: 44

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: HEART ATTACK AT FIRST SIGHT, DISSECTION ON SECOND THOUGHT

Author Leonardo Elihu Perales Rendon, Brenda Alejandra Cerda Olvera, Raúl Pinales Salas, Roberto Velazco, Alberto Leal Valdez, Horacio Muñoz,
Block: Hospital Universitario "Dr. José Eleuterio González", UANL, Monterrey, Nuevo León, Mexico

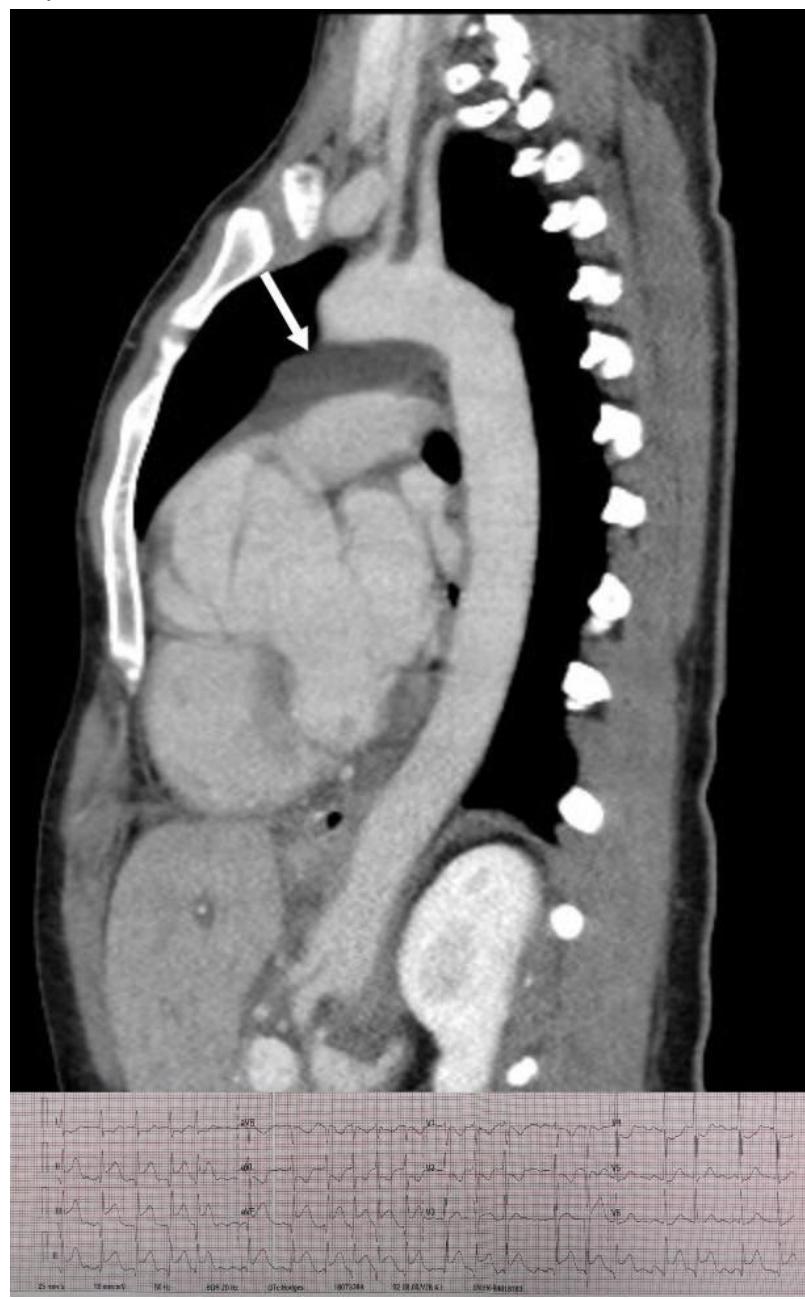
Background: Stanford type A aortic dissection is a cardiovascular emergency that may mimic ST-segment elevation myocardial infarction (STEMI), especially in young women without risk factors, delaying diagnosis.

Case: A previously healthy 30-year-old woman presented with sudden, intense chest pain after exertion. She was hemodynamically unstable. ECG showed ST elevation in inferior leads with reciprocal changes. STEMI was suspected. Urgent coronary angiography showed slow flow in the right coronary artery without atherosclerotic lesions, suggesting dynamic obstruction.

Decision-making: Persistent pain and atypical findings prompted a contrast-enhanced chest CT, revealing a Stanford type A dissection from the aortic root to ascending aorta, involving the right coronary ostium and causing severe acute aortic regurgitation (AR). AR led to abrupt left ventricular volume overload and hemodynamic collapse. IV beta-blockers were started for blood pressure control. Cardiothoracic surgery was consulted for urgent repair.

Abstract Body:

Conclusion: Aortic dissection should be considered in young patients with atypical STEMI and no risk factors, particularly with abnormal coronary flow and no evident lesions. Early recognition and surgical intervention are vital to improve survival.



Control Number: 25-CCC-764-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-45

Poster Board Number: 45

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: ANOMALOUS ORIGIN OF THE RIGHT CORONARY ARTERY FROM THE TRUNK OF THE PULMONARY ARTERY: ARCAPA SYNDROME

Author Block: Carlos Aarón Proaño-Larrea, VICTOR ARMANDO PÉREZ-MEZA, Clara Vásquez-Antona, Laura Leticia Rodríguez-Chávez, National Institute of Cardiology Ignacio Chávez, Mexico city, Mexico

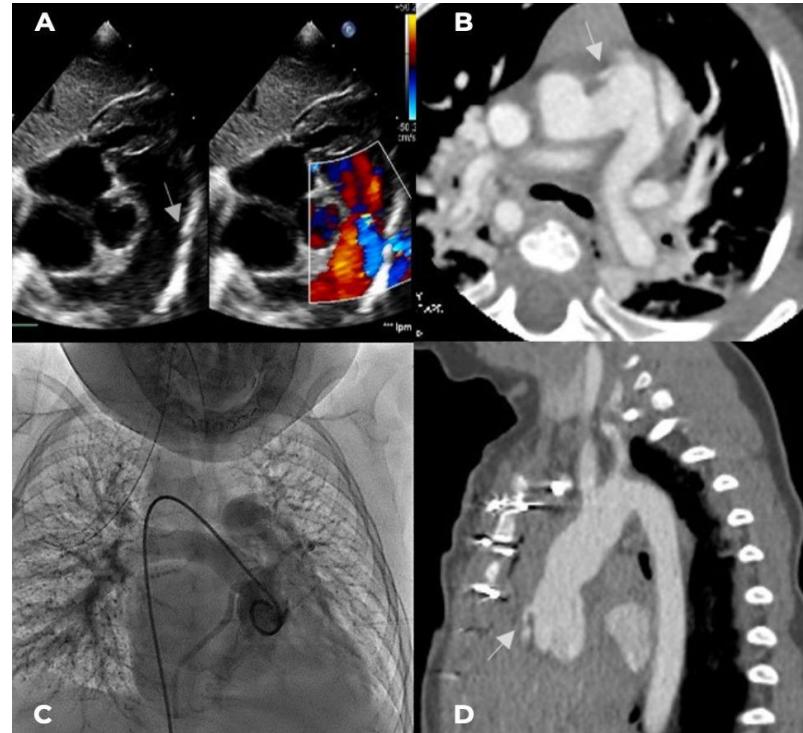
Background: ARCAPA (anomalous right coronary artery from the pulmonary artery) is an extremely rare congenital defect (0.002%). Surgical reimplantation prevents ischemia, arrhythmias, and sudden death caused by left-to-right shunting.

Case: A 7-month-old male patient, asymptomatic, with adequate weight gain and no anthropometric abnormalities, was referred to our institution for a transthoracic echocardiogram due to a murmur heard at his health center. The patient had no relevant past medical history. Physical examination revealed a single first sound, an increased intensity second sound with physiological splitting, absent S3-S4 sounds, and a continuous harsh grade II/IV murmur in the suprasternal region. There were no other relevant findings.

Decision-making: The following were performed: TTE (A): Type II aortopulmonary window measuring 14.5 x 12 mm with left-to-right shunt and ARCAPA. CT coronary angiography (B): Right aortic arch in ARCAPA and anomalous origin of the left brachiocephalic trunk. LV function was normal (EF >70%). Diagnostic catheterization (C): Right aortic arch in ARCAPA was

confirmed. ARCPA was confirmed, and RCA reimplantation, resection of the aortopulmonary window (1.5 cm), and reconstruction of the pulmonary trunk with autologous pericardium were performed (D).

Conclusion: ARCPA is exceptionally rare, with only two cases documented at our institution. Diagnosing this condition is essential for early surgical intervention and preventing complications.



Control Number: 25-CCC-550-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-46

Poster Board Number: 46

Topic 1: Multimodal Imaging

Publishing Title: A RARE PRESENTATION OF A PULMONARY VALVE BLOOD CYST ASSOCIATED WITH PULMONARY ARTERY ANEURYSM: A CASE REPORT

Author Block: Gabriela Acevedo, Wilfredo Velezmoro, BRYAN WALTER ANGULO GARCIA, MARIA ELIZABETH, Miguel Agustin Reyes Rocha, Hospital Nacional Edgardo Rebagliati Martins, Lima, Peru

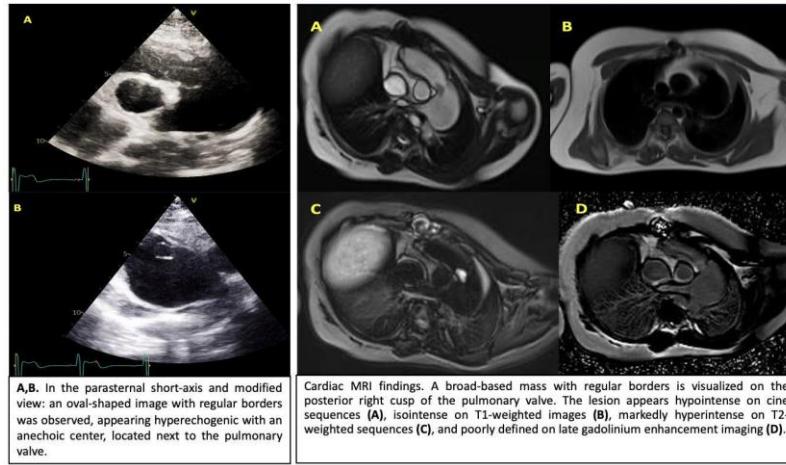
Background: Benign cardiac masses are rare and cysts are even more uncommon. They are most often found in newborns or infants and typically resolve with age.

Case: A 10-year-old female with a history of atrial septoplasty and patent ductus arteriosus closure was referred after a routine echocardiogram revealed a dilated pulmonary artery. She was asymptomatic, with normal lab results, and had a grade II/VI diastolic murmur on physical examination. Repeat echocardiography at our institution showed an oval, mobile, well-defined hyperechogenic mass with an anechoic center near the pulmonary valve, suggestive of a cyst. Moderate to severe pulmonary regurgitation was also observed. Cardiac MRI confirmed a 15×10 mm broad-based mass on the posterior right cusp of the pulmonary valve, with regular borders and motion synchronized to the cardiac cycle. It appeared hypointense on cine, isointense on T1, markedly hyperintense on T2, and poorly defined on late gadolinium enhancement, findings consistent with a blood cyst.

Decision-making: Due to the patient's stable and asymptomatic condition,

conservative management with regular follow up was chosen. She remains stable, with no significant changes on serial echocardiograms.

Conclusion: This case is notable for the rare combination of pulmonary valve involvement and a pulmonary artery aneurysm, emphasizing the importance of multimodal imaging in accurately diagnosing and excluding other cardiac masses.



Control Number: 25-CCC-565-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-47

Poster Board Number: 47

Topic 1: Multimodal Imaging

Publishing Title: CMR DIAGNOSIS OF CHRONIC CONSTRICTIVE PERICARDITIS WITH INSIDIOUS CLINICAL PRESENTATION

Author Block: Claudia Isabel Caballero Hernández, Sandra Graciela Rosales Uvera, Elsa Rojas Hernandez, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Ciudad de México, Mexico

Background: The diagnosis of constrictive pericarditis remains a challenge, especially when the clinical picture is subacute.

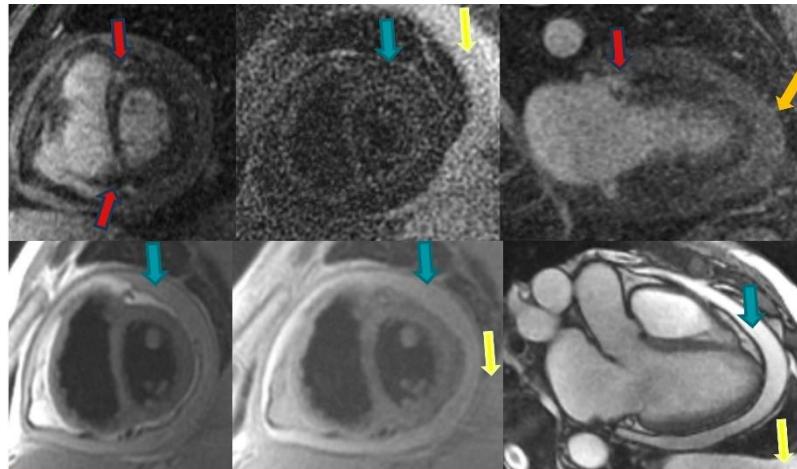
Case: 59-year-old male patient with a history of chronic pancreatitis and metabolic syndrome with poor adherence to treatment. He was admitted to our institute with a typical picture of right heart failure; the electrocardiogram showed low voltage and t-wave flattening in all leads, chest X-ray showed bilateral pleural effusion and pericardial calcifications, then transthoracic echocardiogram was performed where data of constrictive pericarditis were demonstrated.

Decision-making: A cardiac magnetic resonance study was requested to our department, a pericardial protocol was performed finding severe chronic pericardial effusion, thickened pericardium without late enhancement; myocardial characterization showed anteroseptal and mid inferoseptal epicardial late enhancement according to parietal stress. A 2017 chest X-ray identifies the presence of pericardial calcifications, however it never showed any clinical evidence of pericarditis. A diagnosis of chronic constrictive pericarditis was established. The patient is currently awaiting

Abstract Body:

pericardectomy.

Conclusion: We present a clear example of the importance of diagnostic imaging in an insidious presentation of constrictive pericarditis.



a. Delay Short Axis b. STIR c. Delay 2CH d. DIR e. DIR FS f. SSFP 3CH. Red arrows: Mid anteroseptal and inferoseptal epicardial late enhancement. Blue arrows: chronic pericardial effusion. Yellow arrows: pleural effusion.

Control Number: 25-CCC-601-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-48

Poster Board Number: 48

Topic 1: Multimodal Imaging

Publishing Title: TAKAYASU ARTERITIS IN LATIN AMERICAN WOMAN WITH SEVERE VALVULOPATHY AND ATYPICAL CORONARY INJURY

Johanny Liliana Bonilla Moya, Cleysi Galva, Edgar D. Cadena Barranco, Katihurca Almonte, Samuel Bencosme, Nelson Acosta, José Ramón Kahdafi Rivera Acosta, Jonathan Rodríguez, Jennifer Lugo, Jorge Guerrero, Génesis Espinal, Maykel Tapia, SR, José Acevedo, Carlos Rivera, ASOCIACION INSTITUTO DOMINICANO DE CARDIOLOGIA, SANTO DOMINGO, Dominican Republic

Background: TAKAYASU ARTERITIS IS A RARE LARGE-VESSEL VASCULITIS MAINLY AFFECTING YOUNG WOMEN, OFTEN DIAGNOSED LATE DUE TO NONSPECIFIC SYMPTOMS.

Case: 41 YEAR-OLD WOMAN WITH RHEUMATIC HEART DISEASE PRESENTED WITH PROGRESSIVE DYSPNEA, PALPITATIONS, AND PRESYNCOPE. SHE HAD HYPOTENSION (80/50 MMHG), TACHYCARDIA, AND LOW OUTPUT SIGNS. TRANSSESOPHAGEAL ECHO SHOWED DOUBLE MITRAL LESION: SEVERE STENOSIS (AREA 0.5CM²) AND MODERATE REGURGITATION, RIGHT ATRIAL AND VENTRICULAR DILATION, AND SEVERE PULMONARY HYPERTENSION. CORONARY ANGIOGRAPHY REVEALED AN IRREGULAR, NON-CALCIFIED LESION IN THE LEFT MAIN ARTERY SUGGESTIVE OF INFLAMMATION; THE RIGHT CORONARY WAS NORMAL. DUE TO DIFFICULTY CANNULATING THE BRACHIOCEPHALIC TRUNK, AN AORTIC ROOT INJECTION WAS PERFORMED, REVEALING A NOTCH LIKE

Abstract Body: AND LOW OUTPUT SIGNS. TRANSSESOPHAGEAL ECHO SHOWED DOUBLE MITRAL LESION: SEVERE STENOSIS (AREA 0.5CM²) AND MODERATE REGURGITATION, RIGHT ATRIAL AND VENTRICULAR DILATION, AND SEVERE PULMONARY HYPERTENSION. CORONARY ANGIOGRAPHY REVEALED AN IRREGULAR, NON-CALCIFIED LESION IN THE LEFT MAIN ARTERY SUGGESTIVE OF INFLAMMATION; THE RIGHT CORONARY WAS NORMAL. DUE TO DIFFICULTY CANNULATING THE BRACHIOCEPHALIC TRUNK, AN AORTIC ROOT INJECTION WAS PERFORMED, REVEALING A NOTCH LIKE

INJURY ABOVE THE VALSALVA SINUSES AND OSTIAL INVOLVEMENT OF THE BRACHIOCEPHALIC TRUNK, LEFT COMMON CAROTID, AND SUBCLAVIAN ARTERIES.

Decision-making: FINDINGS INDICATED TAKAYASU TYPE V.

IMMUNOSUPPRESSIVE THERAPY WAS STARTED; VALVULAR INTERVENTION WAS DEFERRED UNTIL DISEASE CONTROL.

Conclusion: THIS CASE HIGHLIGHTS THE IMPORTANCE OF CONSIDERING VASCULITIS IN YOUNG WOMEN WITH SEVERE VALVULOPATHY AND ATYPICAL CORONARY LESIONS. MULTIMODAL IMAGING AND EARLY DIAGNOSIS ARE KEY FOR PROPER MANAGEMENT.

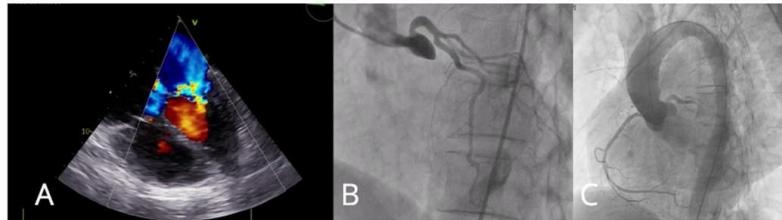


FIGURE 1

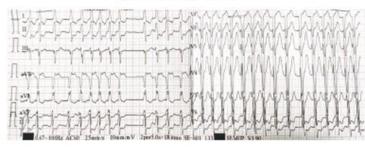


FIGURE 1 A. Transesophageal echocardiogram with color Doppler showing moderate-to-severe mitral regurgitation in a thickened, calcified valve. B. Coronary angiography revealing an irregular injury in the left main coronary artery, suggestive of vasculitis. C. Aortogram demonstrating a "notch-like" lesion above the sinuses of Valsalva with ostial involvement of the brachiocephalic trunk, left common carotid, and subclavian artery—findings consistent with Takayasu arteritis type V.

FIGURE 2 evidence of atrial fibrillation with rapid ventricular response.

FIGURE 2

Control Number: 25-CCC-631-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-49

Poster Board Number: 49

Topic 1: Multimodal Imaging

Publishing Title: ACUTE VIRAL MYOPERICARDITIS WITH REVERSIBLE BIVENTRICULAR DYSFUNCTION IN A YOUNG ADULT A CHALLENGING DIAGNOSIS

Author Block: MILITZA DE LOS SANTOS FUENTES, José J. Aguilar, Juan M. Garcia, Hugo Velazquez, Huitzilihuitl Saucedo, Andrea Ibarra, Gabriela Rojas, Miguel A. Dominguez, Hospital Ángeles Lomas, Mexico, Mexico

Background: Viral myopericarditis can mimic acute coronary syndrome, especially in young adults without cardiovascular risk factors.

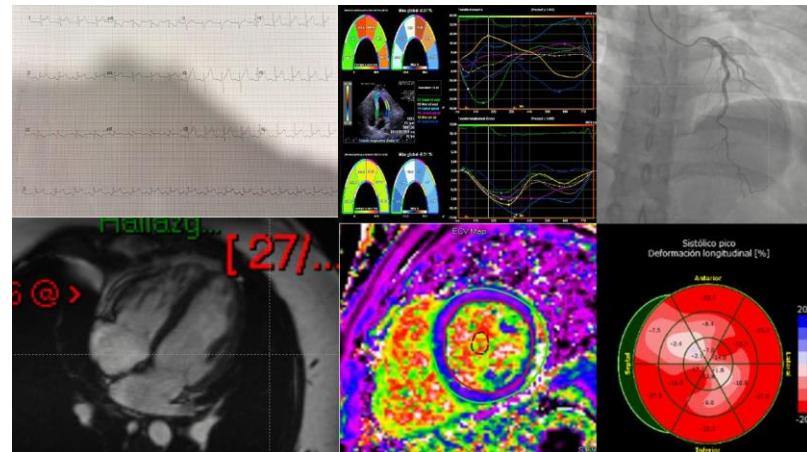
Case: A 20-year-old male with no relevant medical history presented with mild respiratory symptoms, followed by progressive dyspnea and chest pain. He later developed intense, oppressive chest pain with dyspnea and diaphoresis. On arrival, he was hemodynamically stable. Troponin I was 18,259 pg/ml and CPK-MB was 53.7 ng/ml. The ECG showed diffuse concave ST elevation and PR segment depression. Coronary angiography was normal. Transthoracic echocardiogram revealed a left ventricular ejection fraction (LVEF) of 45%, with inferolateral and anterolateral hypokinesis and mildly reduced right ventricular systolic function. Coxsackie B virus was isolated from respiratory samples. Cardiac magnetic resonance confirmed myopericarditis with late gadolinium enhancement in multiple segments and biventricular dysfunction. After three months, follow-up echocardiogram showed full recovery of biventricular function.

Decision-making: The combination of elevated biomarkers, echocardiographic findings, and cardiac MRI allowed for an accurate

Abstract Body:

diagnosis. Conservative management was effective.

Conclusion: Viral myopericarditis is a relevant cause of chest pain in young adults. This case highlights the importance of comprehensive evaluation to avoid unnecessary invasive procedures and guide successful treatment.



Control Number: 25-CCC-725-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-50

Poster Board Number: 50

Topic 1: Multimodal Imaging

Publishing Title: ANATOMICAL FEATURES IN PEDIATRICS VASCULAR RINGS. IMPROVING DIAGNOSIS WITH CARDIAC CT.

Author Alexa Marcel Velásquez García, Sergio Patrón Chi, Liborio Solano, Iñaki Navarro, María del Rosario Becerra, Martín Yair González, David Salazar
Block: Lizarraga, Hospital Infantil de México Federico Gómez, Ciudad de México, Mexico

Background: Case 1: A double aortic arch is the most common symptomatic vascular ring. Case 2: The right aortic arch can form a vascular ring, in left PDA presence. Case 3: Pulmonary sling, the left pulmonary artery arises from the right pulmonary artery.

Case: Case 1: A newborn with a prenatal diagnosis of vascular ring. Cardiac CT revealed a double aortic arch: an asymmetric variety with right dominance and a 30% decrease in tracheal diameter in its proximal segment. Case 2: A newborn with diagnosis VACTERL association, a cardiac CT is performed which concludes vascular ring composed of right aortic arch, left ductus arteriosus and ventricular septal defect. Case 3: A 3 year old with shortness of breath and wheezing. A cardiac tomography is performed. The left pulmonary artery was seen emerging directly from the right pulmonary artery, curving around the trachea.

Decision-making: Case 1: At 20 days of age, section and suture of the non dominant aortic arch + aortopexy. Case 2: At 4 days of age, cerclage of the pulmonary artery trunk and section and suture of the PDA were

performed. Case 3: Detachment of the anomalous left pulmonary artery and direct anastomosis to the left side of the pulmonary artery trunk.

Conclusion: CT is a non-invasive, rapid and accurate evaluation of vascular abnormalities. Newer strategies allow the use of this techniques with a very low dose of radiation in pediatric population, and allows the examination of extracardiac structures as trachea and bronchi.

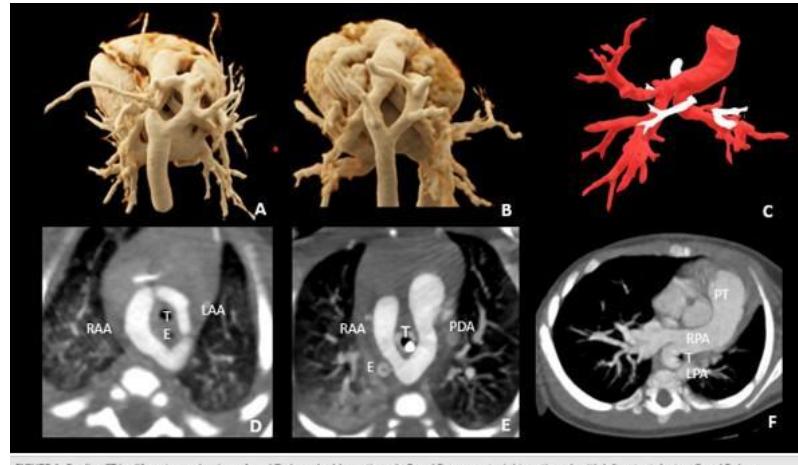


FIGURE 1. Cardiac CT in different vascular rings. A and D show double aortic arch. B and E represents right aortic arch with left patent ductus. C and F show pulmonary sling.
RAA: right aortic arch. LAA: left aortic arch. PDA: patent ductus arteriosus. PT: pulmonary trunk. RPA: right pulmonary artery. LPA: left pulmonary artery. T: trachea. E: esophagus.

Control Number: 25-CCC-726-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-51

Poster Board Number: 51

Topic 1: Multimodal Imaging

Publishing Title: BORDERLINE LEFT VENTRICLE. ANATOMICAL FEATURES AND EVALUATION BY CMR

Author Martín Yair González Gutiérrez, Sergio Alfonso Patrón Chi, Iñaki Navarro Castellanos, Liborio Solano Fiesco, María del Rosario Becerra Becerra,
Block: David Salazar Lizarraga, Alexa Velásquez, Hospital Infantil de México Federico Gómez, Ciudad de México, Mexico

Background: Main challenge in managing a borderline left ventricle is reaching a clear definition, as it involves multiple morphometric and functional parameters to assess adequacy. Decision making requires an individualized, comprehensive approach that integrates anatomical measurements, functional data, surgical options, and institutional experience.

Case: Male neonate with respiratory distress. Initial evaluation revealed a complex congenital heart defect with hypoplastic left ventricle.
Abstract Body: Cardiac magnetic resonance imaging (CMR) showed:

- End diastolic volume 19.5 ml/m² -End systolic volume 4.2 ml/m²
- Mitral valve annulus Z-score -1.51
- Aortic valve annulus Z-score -3.2
- Left ventricular ejection fraction: 75%
- Severe hypoplasia of the transverse aortic arch
- No late gadolinium enhancement

Decision-making: Hybrid procedure included bilateral pulmonary artery

banding, stent placement in the aortic arch, ductal stent, and Rashkind atrial septostomy. He is under clinical follow-up awaiting further palliative care.

Conclusion: This case highlights the complexity of a borderline hypoplastic left ventricle. CMR provided valuable insight into volumes, valvular dimensions, and myocardial integrity, supporting a palliative strategy rather than biventricular repair.

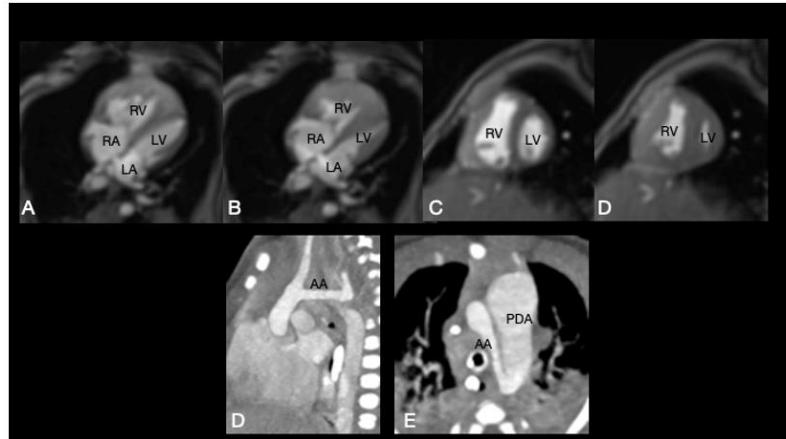


Figure 1.
Cardiac MR. Cines in diastole (A) and systole (B). C and D are short axis cines. Cardiac CT (D and E) showing aortic arch hypoplasia. Right atrium (RA), Left atrium (LA), Right ventricle (RV), Left ventricle (LV), Aortic arch (AA), Patent ductus arteriosus (PDA).

Control Number: 25-CCC-748-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-52

Poster Board Number: 52

Topic 1: Multimodal Imaging

Publishing Title: BERRY SYNDROME A COMPLEX CASE OF AORTO PULMONARY WINDOW WITH INTERRUPTED AORTIC ARCH IN A NEWBORN. CMR AND CARDIAC CT APPROACH

Alejandrina Mendoza Mandujano, Sergio Patron Chi, Gabriela Melendez

Author Ramirez, Antonio Salgado Sandoval, Instituto Nacional de Cardiología

Block: Ignacio Chávez, ciudad de mexico, Mexico, Centro Medico Nacional 20 de Noviembre, ciudad de mexico, Mexico

Background: Interrupted aortic arch is characterized by a discontinuity of the aortic arch, whereas aortopulmonary window is a defect in the septum between the aorta and the pulmonary artery. Coexistence of both congenital anomalies is rare but clinically relevant. After a positive cardiac screening a newborn male underwent an echocardiogram, which reported a type A interrupted aortic arch.

Abstract Body: **Case:** At 15 days of life he was sent to our Institution. after confirming the diagnosis via echocardiography, Computed tomography angiography (CCT) and cardiac magnetic resonance (CMR) were performed and a diagnosis of a type A aortic arch interruption Celoria Patton classification, a type II aortopulmonary window, and an anomalous origin of the right pulmonary artery from ascending aorta (Berry syndrome).

Decision-making: Given the anatomical complexity, a multidisciplinary approach was carried out. The proposed repair included reimplantation of the right pulmonary artery, closure of the aortopulmonary window, and

reconstruction of the aortic arch. Surgical repair was decided upon, the postoperative course was poor, leading to the patient's death.

Conclusion: Advanced imaging studies such as CMR and cardiac CT play a fundamental role in the diagnostic and therapeutic approach to complex congenital heart disease. These tools allow for detailed anatomical characterization and biventricular function assessment, making them essential for designing individualized treatment plans for these patients.

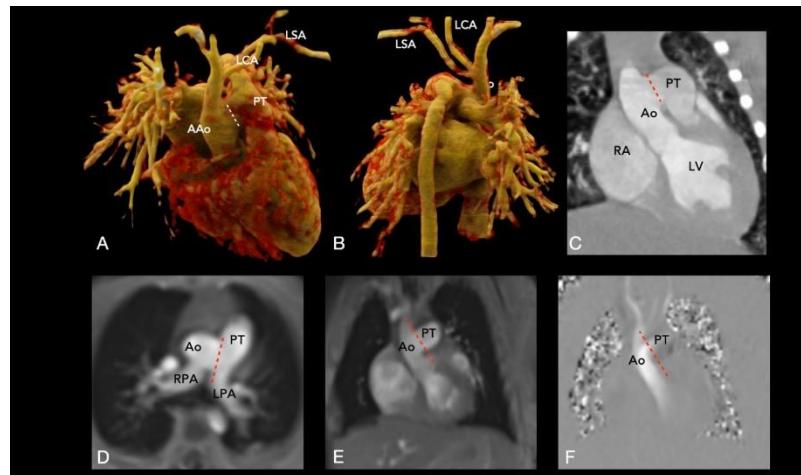


Figure 1. Top panel. Cardiac CT. A and B 3D volume rendering images showing type A interrupted aortic arch. C shows aortopulmonary window (dotted line). Bottom panel. CMR. Cine showing aortopulmonary window (dotted line) and anomalous origin of RPA from ascending Ao (D). E and F 2D phase contrast showing the shunt from Ao to PT
AAo: Ascending aorta. PT: pulmonary trunk. LCA: left carotid artery. LSA: left subclavian artery. RPA: right pulmonary artery. LPA: left pulmonary artery

Control Number: 25-CCC-776-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-53

Poster Board Number: 53

Topic 1: Multimodal Imaging

Publishing Title: ADULT VARIANT OF ALCAPA SYNDROME DIAGNOSED AFTER NONOBSTRUCTIVE MYOCARDIAL INFARCTION

Author Luis Roberto García Tapia, Antonio E. Mendoza Enciso, Edgar A. Sáenz
Block: Ordoñez, Sinthia L. Bonilla Lazo, Mario A. Torres Padilla, Nestor R. Barrientos Guzmán, José Carlos Rodríguez González, Instituto Nacional de Cardiología Ignacio Chávez, Mexico, Mexico

Background: A 56-year-old woman with wood smoke exposure, hypertension, and prediabetes, with no known cardiovascular history.

Case: She presented with angina and was diagnosed with non-ST elevation myocardial infarction. Coronary angiography showed no obstructive lesions but revealed anomalous origin of the left main coronary artery from the pulmonary artery (ALCAPA) with collateral flow from an ectatic right coronary artery. Left ventricular ejection fraction was 32.9% at diagnosis. Right heart catheterization showed Qp:Qs 1:1.15 and normal pulmonary resistance. The Heart Team recommended surgery. A modified Takeuchi procedure with a Gore-Tex 5 graft was performed without complications. After surgery, left ventricular ejection fraction improved to 57%. She is currently asymptomatic, NYHA I, on optimal therapy.

Decision-making: ALCAPA in adults is rare and often presents with angina or ventricular dysfunction. Surgery was crucial to reduce arrhythmias, sudden death, and improve prognosis. Heart Team evaluation ensured individualized treatment. Clinical and echocardiographic improvement confirmed the

benefit of late correction, preventing future cardiac events and improving quality of life.

Conclusion: ALCAPA should be suspected in unexplained ventricular dysfunction. Multimodality imaging is key for diagnosis and surgical planning. Surgery improves survival and requires long-term follow-up with annual imaging and multidisciplinary care to monitor for late complications.



Control Number: 25-CCC-787-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-54

Poster Board Number: 54

Topic 1: Multimodal Imaging

Publishing Title: 4D FLOW CARDIOVASCULAR MAGNETIC RESONANCE: A PARADIGM SHIFT IN THE EVALUATION OF COMPLEX CONGENITAL HEART DISEASE A CASE REPORT

Author Block: Laura V. Torres-Araujo, Luis Enrique Hernandez Badillo, Antonio Jordan-Rios, Moises Jimenez-Santos, Jorge A. Silva-Estrada, Instituto Nacional de Cardiologia Dr Ignacio Chavez, CDMX, Mexico, CT-Scanner Lomas Altas

Background: Shone's syndrome is a rare and complex congenital heart disease (<0.6% of CHDs) defined by serial left-sided obstructive lesions. Its diagnosis remains challenging due to hemodynamic complexity, requiring comprehensive multimodal imaging strategies.

Case: An asymptomatic 18-year-old male with unrepaired Shone's syndrome was referred to adult congenital cardiology. Transthoracic echocardiography was limited, prompting cardiovascular magnetic resonance (CMR) with 4D flow. This modality enabled precise, non-invasive assessment of complex hemodynamics, including pressure gradients, flow turbulence, myocardial fibrosis, and biventricular function. These findings guided risk stratification and long-term clinical decision-making.

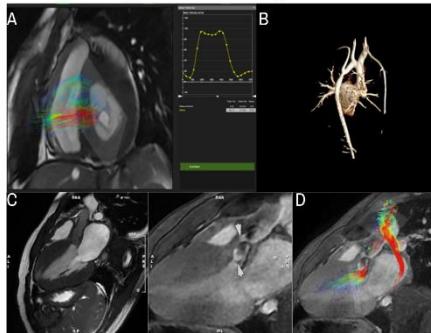
Decision-making: Integration of 4D flow CMR enabled a comprehensive, non-invasive assessment in a single session, identifying severe mitral and aortic stenosis, subaortic membrane, recoarctation, and left atrial dilation. This advanced imaging streamlined clinical decision-making, avoided redundant tests, optimized therapeutic planning, and facilitated the

Abstract Body:

transition from pediatric to adult congenital heart disease care.

Conclusion: This case highlights the value of 4D flow CMR as a transformative tool in CHD evaluation. It enables detailed, non-invasive assessment of complex hemodynamics in a single session, streamlining diagnosis, guiding therapy, and improving continuity of care.

Figure 1. 4D Flow Cardiovascular Magnetic Resonance:



A. 4Dflow sequence showing flow acceleration through mitral valve. B. Cine three chamber (3Ch) view showing unique papillary muscle C Cine gradient echo sequence 3Ch view showing the subaortic and supravalvular aortic stenosis (arrows) and 4Dflow showing the acceleration pattern D. CMR angiography showing the aortic coarctation.

Control Number: 25-CCC-538-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-55

Poster Board Number: 55

Topic 1: Valvular Diseases

Publishing Title: VALVULAR CONSEQUENCES: THE AFTER-PARTY PROBLEM

Author Block: Diego Rangel, Gustavo Lemus, Juan Felipe Vasquez, Yeisson Avila Cortés, Carlos-Eduardo Guerrero-Chálela, Gabriel Salazar, Fundación Cardioinfantil, Bogotá, Colombia

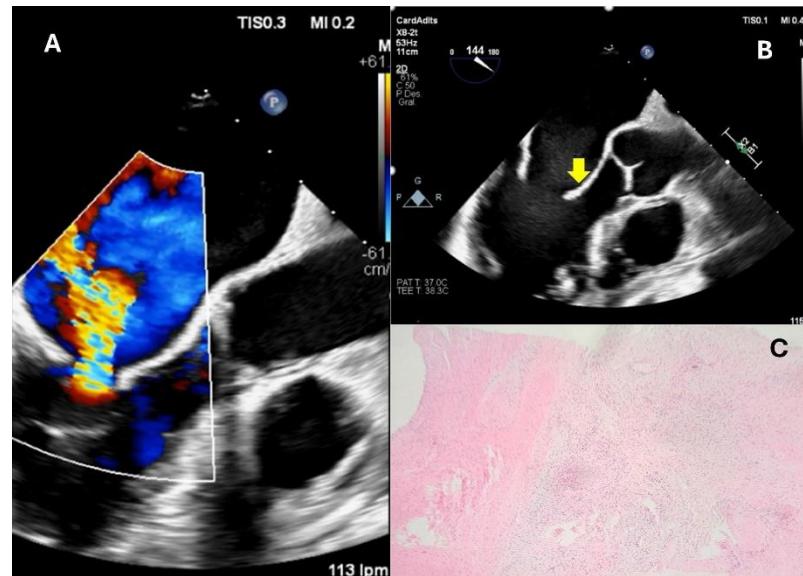
Background: Mitral regurgitation (MR) is a common valvular pathology and is usually related to myxomatous degeneration, rheumatic disease and infective endocarditis (IE). Infrequently, the use of recreational drugs such as 3,4-methylenedioxymethamphetamine (MDMA) "ecstasy" can cause cardiac valvular damage.

Case: A 41-year-old man consults for 2 days of fever and symmetrical joint pain. He had a history of frequent consumption of NMDA and alcohol 2-3 times per week. Echocardiogram was indicated due to fever without apparent focus, which showed severe mitral insufficiency with diffuse thickening and restriction of valve motion predominantly anterior (yellow arrow) with no evidence of thrombus or vegetations (Image 1). Surgical valve replacement was performed with non-infectious and non-rheumatic histopathological findings. A subsequent arthrocentesis culture was positive for *N. gonorrhoeae*.

Decision-making: A comprehensive approach ruled out the diagnosis of IE. Due to decreased systolic function and findings of primary MR, valve replacement was performed. The surgical specimen showed findings

compatible with valvular damage by MDMA.

Conclusion: Toxic causes must be ruled out in the etiologic evaluation of MR and this case supports the association with MDMA use.



Control Number: 25-CCC-540-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-56

Poster Board Number: 56

Topic 1: Valvular Diseases

Publishing Title: PARACHUTE MITRAL VALVE AS A CAUSE OF MITRAL REGURGITATION

Author Block: María Fernanda Vargas Ascencio, Lilia Mercedes Sierra Galan, Marina Marquez Abreu, Jorge Luis Denis Bravo, ABC Medical Center, Mexico City, Mexico

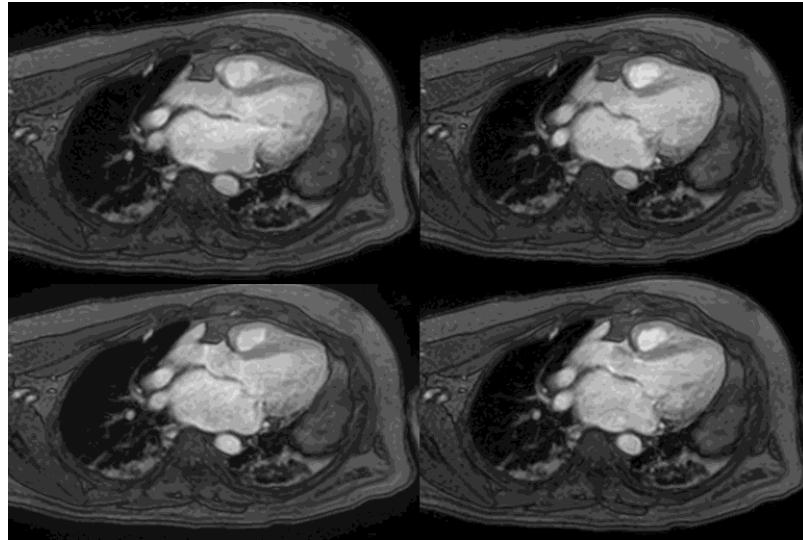
Background: A 42-year-old man with a history of surgical repair of aortic coarctation during infancy was referred to the ER.

Case: He presented with palpitations and tachycardia of 160 bpm with atrial flutter rhythm, left bundle branch block, aortic and mitral regurgitant murmur and atrial gallop. Amiodarone infusion was started, with return to sinus rhythm. Transthoracic echocardiography revealed mildly reduced systolic function (LVEF 40%), generalized hypokinesia, severely dilated left atrium, thickened mitral leaflets, with insufficiency and eccentric jet of regurgitation. Cardiac magnetic resonance showed bicuspid aorta, with mild insufficiency, asymmetry of the mitral leaflets due to prolapse of the anterior leaflet and poor coaptation due to redundant leaflet, with slight calcification of the posterior annulus, causing severe mitral regurgitation, with two regurgitant orifices in segments A1 and P3, and a single papillary muscle in the posterior wall, origin of all the chordae tendineae, compatible with a parachute mitral valve with a unique hypertrophic papillary muscle.

Decision-making: A surgical change of the mitral valve was performed with a 29 mm mechanical prosthetic heart valve, with echocardiographic control

without paravalvular leak and improvement in systolic function. An electrophysiology study and ablation of cavotricuspid isthmus was performed, which was successful.

Conclusion: Shone complex is an under-recognized entity associated with low mortality in adulthood



Control Number: 25-CCC-546-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-57

Poster Board Number: 57

Topic 1: Valvular Diseases

Publishing Title: INFECTIVE ENDOCARDITIS CAUSED BY *ACHROMOBACTER XYLOSOXIDANS*: AN EXTREMELY RARE ENTITY AND A THERAPEUTIC CHALLENGE

Azalea H Leon Tovar, Ricardo Sánchez de la Vega, Alejandra Cuevas

Author Fernández, Centro Médico Nacional 20 de Noviembre, ISSSTE., Mexico City,

Block: Mexico, Facultad Mexicana de Medicina, Universidad La Salle, Mexico City, Mexico

Background: *Achromobacter xylosoxidans* (*A. xylosoxidans*) is a Gram-negative bacillus, and an uncommon pathogen, rarely implicated in infective endocarditis (IE). Its association with intravascular devices presents diagnostic and therapeutic difficulties.

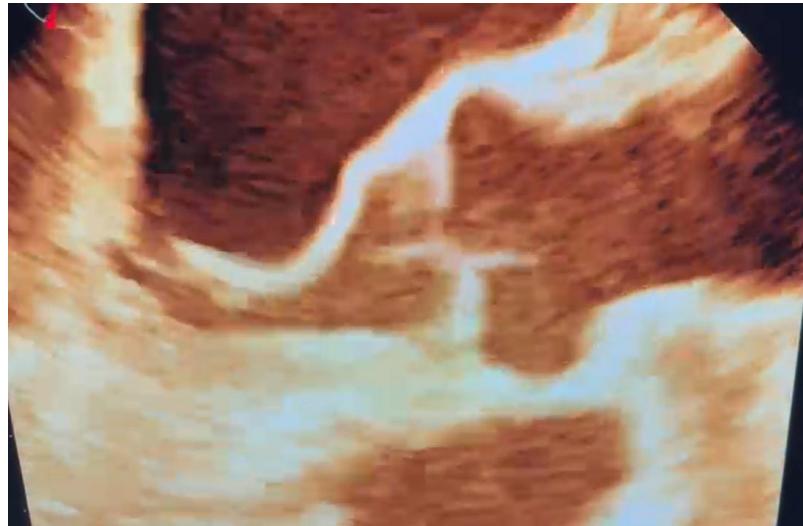
Case: A 71-year-old man with a history of non-intravenous drug use, underwent right iliac endoprosthesis placement for an infrarenal abdominal aortic aneurysm. 48 hours later, he developed persistent fever without other symptoms. On admission, vital signs and laboratory results were unremarkable. He later experienced supraventricular tachycardia episodes, resolved with pharmacologic cardioversion. Transthoracic echocardiogram was normal. Blood cultures performed at each fever peak remained negative for days, until *A. xylosoxidans* grew, with susceptibility to ceftazidime, imipenem, and trimethoprim-sulfamethoxazole. Ceftazidime was started, but persistent fever and bacteremia prompted treatment escalation. Weeks later, transesophageal echocardiography revealed a 10 mm vegetation on the non-coronary leaflet of the aortic valve.

Abstract

Body:

Decision-making: Aortic valve replacement and coronary revascularization were performed. Chronic suppressive antibiotics were indicated due to the high surgical risk of endoprosthesis removal.

Conclusion: IE by *A. xylosoxidans* is extremely rare. Biofilm formation and intrinsic antibiotic resistance render it a particularly challenging pathogen with limited therapeutic options.



Control Number: 25-CCC-562-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-58

Poster Board Number: 58

Topic 1: Valvular Diseases

Publishing Title: BEYOND 2D: THE TRUE CAUSE OF A PUZZLING MITRAL REGURGITATION

Author Block: Gustavo Lemus, Yeisson Avila, Juan Felipe Vasquez, Diego Rangel, Gabriel Salazar, JULIAN GELVES, La Cardio, Bogotá, Colombia, Universidad del Rosario, Bogotá, Colombia

Background: Double-orifice mitral valve (DOMV) is a rare congenital anomaly, accounting for less than 1% of all mitral valve malformations. Although often diagnosed in childhood, it may go unrecognized until adulthood, particularly in patients with unexplained mitral regurgitation.

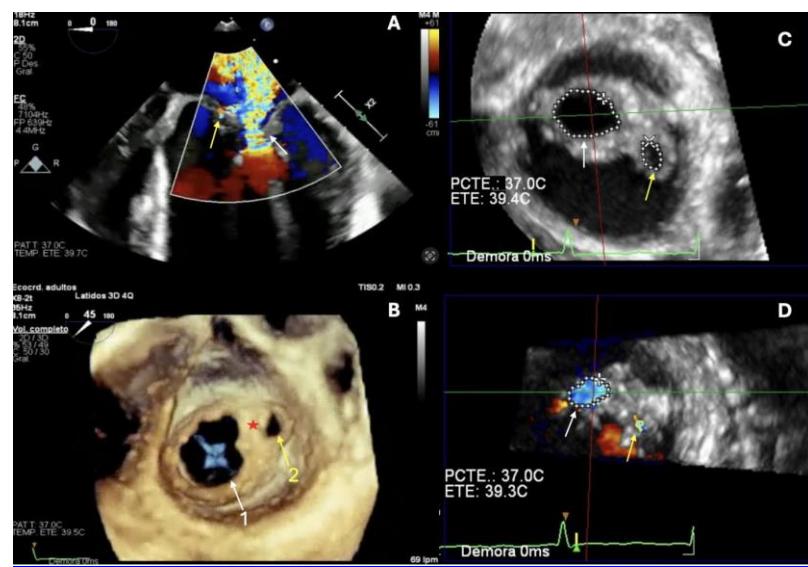
Case: A 36-year-old woman with no cardiovascular history presented with exertional dyspnea. Transthoracic echocardiography (TTE) revealed moderate mitral regurgitation with an eccentric jet of unclear mechanism.

Transesophageal echocardiography (TEE) with 3D imaging was performed. **Decision-making:** 3D TEE showed a complete bridge-type DOMV with two orifices and distinct regurgitant jets. The larger orifice measured 2.4 cm^2 , the smaller 0.4 cm^2 . A fibrous bridge separated them. No signs of rheumatic disease or endocarditis were found. Conservative management was chosen.

Conclusion: This case illustrates the diagnostic value of 3D TEE in uncovering uncommon congenital anomalies such as DOMV. Recognition of this entity is essential when evaluating unexplained mitral regurgitation in young adults and reinforces the importance of advanced imaging techniques

Abstract Body:

in valvular assessment.



Control Number: 25-CCC-752-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-59

Poster Board Number: 59

Topic 1: Valvular Diseases

Publishing Title: Q-FEVER ENDOCARDITIS: A DIAGNOSTIC CHALLENGE

Author Block: Ana Rosa Hernández Martínez, II, Elizabeth Armijo Yescas, Karen Bonfil Solis, Tania Hernández Trejo, Hospital Regional de Alta Especialidad Bicentenario de la Independencia, Estado de México, Mexico

Background: Q fever is a globally endemic bacterial zoonosis with a low incidence. Its manifestation as culture-negative endocarditis is rare and challenging to diagnose due to nonspecific symptoms.

Case: A 52-year-old man with obesity, type 2 diabetes, hypertension, and sleep apnea, but no prior cardiovascular disease, started with recurrent fever, abdominal pain, leg edema, and progressive functional decline. He was hospitalized for decompensated heart failure with newly diagnosed aortic insufficiency, along with impaired liver and kidney function and a systemic inflammatory response. Multiple blood cultures were negative, and empirical antibiotic therapy was ineffective. Echocardiography revealed a large vegetation on the aortic valve, prompting valve replacement. Postoperatively, the patient developed multi-organ failure and died.

Decision-making: Histopathological analysis of the excised valve showed multinucleated giant cells and a lymphocytic infiltrate. Subsequent serological testing confirmed *Coxiella burnetii* infection. Unfortunately, specific treatment was initiated too late.

Conclusion: This case highlights the diagnostic challenges of Q fever

endocarditis and the importance of considering *Coxiella burnetii* in all cases of culture-negative endocarditis to prevent fatal outcomes.

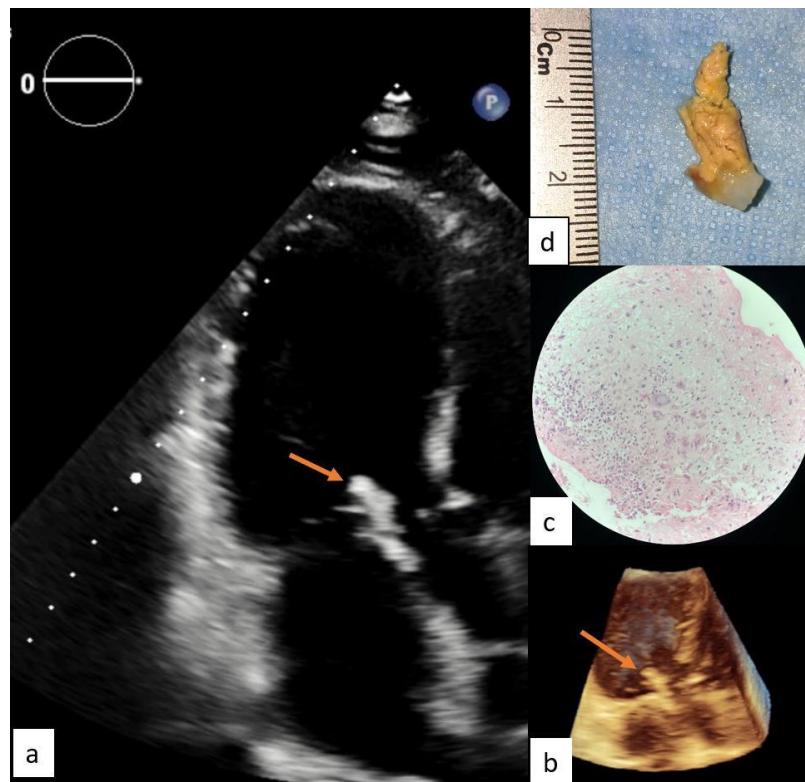


Figure 1. a) Transthoracic echocardiogram, apical 3-chamber axis, vegetation (arrow) is observed in the posterior portion of the non-coronary valve, lumbrocoid morphology, 20 mm long. b) Echocardiographic 3D reconstruction of vegetation. c) Histopathological study. d) Aortic valve vegetation real photograph.

Control Number: 25-CCC-757-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-60

Poster Board Number: 60

Topic 1: Valvular Diseases

Publishing Title: THE AUSTRIAN SYNDROME, A RARE CLINICAL ENTITY

Author Block: Itzel Garibay Padilla, Eduardo Narciso Salazar, Michelle Lagrange Gomez, Itzel Nahome Zepeda Novoa, Itzamar Ivonne Vazquez Lopez, Francisco Javier Davalos Contreras, Ximena Medina, Sofia De la Paz Estrada, Paola Vanessa Rios Escobedo, Christian Gonzalez Padilla, JORGE EDUARDO HERNANDEZ DEL RIO, Tomas Miranda Aquino, Erick Fernando Garcia Jardon, Carlos Eduardo Sotomayor Casillas, Hospital Civil de Guadalajara Fray Antonio Alcalde, Guadalajara, Mexico

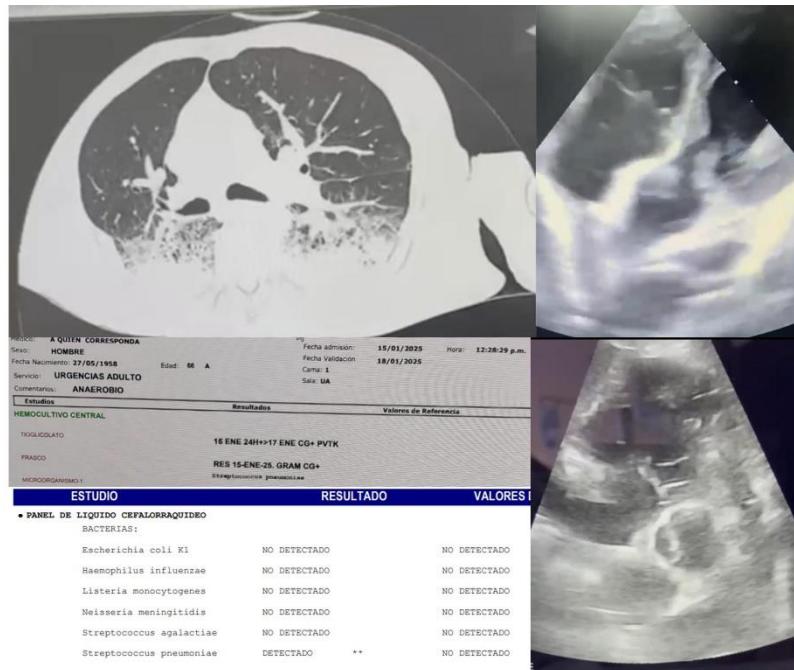
Background: *Streptococcus pneumoniae* is a rare cause of endocarditis, with a prevalence below 1%. The Austrian syndrome, is the association of endocarditis, pneumonia and meningitis caused by *s. pneumoniae*. The most important risk factors are alcoholism, male sex and splenectomy, and the most affected valve is the aortic valve. The first line of treatment are beta lactam antibiotics and heart valve surgery if applicable. The prognosis is poor with a 30-60% mortality.

Case: We present a 67 year old male with a history of alcoholism without other relevant history. He presents with a deteriorated level of consciousness, and is admitted to the emergency room in a state of circulatory shock. Point of care ultrasound revealed aortic valve endocarditis. Follow up testing revealed blood, bronchoalveolar lavage and cerebrospinal fluid cultures all positive for *S. pneumoniae*. Vasopressors and

empiric antibiotic treatment are initiated with poor response, The patient died from septic shock in the following days.

Decision-making: When faced with a patient with *S. pneumoniae* endocarditis, it is crucial to investigate other sources of infection in the diagnostic workup because of the pathogen's tendency to cause pneumonia and meningitis.

Conclusion: The coexistence of meningitis, pneumonia and endocarditis caused by *S. pneumoniae* is rare. This patient had the most established risk factors and was found with the triad, highlighting the need to search for multiple sources of infection in these patients.



Clockwise from top left: Bilateral pulmonary infiltrates. Aortic valve vegetation. Tricuspid valve vegetation. Blood and LCR cultures positive to *s. pneumoniae*.

Control Number: 25-CCC-759-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-61

Poster Board Number: 61

Topic 1: Valvular Diseases

Publishing Title: UNVEILING A HIDDEN THREAT: ROTHIA MUCILAGINOSA ENDOCARDITIS IN THE ABSENCE OF VALVULAR VEGETATIONS

Author Block: Kimberly Pagan, Jorge Illanas, Ethyann Garcia, Hector Martinez, Milton Carrero, Mayaguez Medical Center, Mayaguez, PR, PR

Background: Infective endocarditis (IE) is a rare but serious infection of the endocardial surface, with an incidence of 3-10 cases per 100,000 annually. While *Streptococcus* spp., *Staphylococcus aureus*, *Enterococci*, and the HACEK group are common pathogens, rare organisms are increasingly reported. *Rothia mucilaginosa*, a Gram-positive coccus from the oral and respiratory flora, is an uncommon IE cause, typically affecting immunocompromised patients or those with prosthetic valves. To date, no cases of *R. mucilaginosa* IE associated with central venous catheters have been reported.

Abstract Body: We describe a 47-year-old woman with hypertension, type 2 diabetes, coronary artery disease, HFrEF, tracheostomy status, and cirrhosis due to untreated HCV, who was admitted with fever, dyspnea, abdominal pain, and ascites. She was diagnosed with sepsis secondary to pneumonia and spontaneous bacterial peritonitis (diagnostic paracentesis revealed WBC $3.674 \times 10^3/\mu\text{L}$). Nasal MRSA PCR was positive, and blood cultures revealed Gram-positive bacteremia.

Decision-making: DUKE Criteria suggested possible IE.

Electrocardiography reported sinus tachycardia of 126 bpm. Transthoracic echocardiogram was negative for vegetations, but transesophageal

echocardiogram showed LVEF 25-30% with global hypokinesia and a vegetation on the distal tip of the central line. The catheter was removed, and the tip culture grew *R. mucilaginosa*, confirming it as the likely source of catheter-associated endocarditis in this immunocompromised patient. This patient was managed with culture-specific antibiotic therapy for a total of 42 days and successfully discharged home.

Conclusion: This case identifies *Rothia mucilaginosa*, though rare, as a clinically relevant pathogen in catheter-associated IE in high-risk, immunocompromised patients. It also reinforces the importance of considering non-valvular sources of infection in cases of persistent bacteremia. Early recognition, supported by a multidisciplinary team, along with transesophageal echocardiography and catheter tip cultures, is essential for accurate diagnosis and timely management.

Control Number: 25-CCC-907-ACCLA

Session Title: Saturday Morning Poster Session

Session Time: Saturday, September 20, 2025, 10:50 am - 11:20 am

Presentation Number: 42-62

Poster Board Number: 62

Topic 1: Multimodal Imaging

Publishing Title: UNCOMMON CAUSES OF DYSPNEA: EXPLORING UNUSUAL POSSIBILITIES

Author José Abel Camilo Figueroa, Carolina Tejada, Yomary Campos, Maria Lopez, Christopher Manuel Lopez, Henry Lisander Frias Pichardo, milton cruz
Block: tejada, Daniel Alejandro Rivera, Clínica Universitaria Unión Médica del Norte, Santiago de los Caballeros, Dominican Republic

Background: Coronary artery fistulas are uncommon anomalies of the coronary vessels occurring in approximately 0.1% to 0.2% of the population. Most are congenital and may remain asymptomatic for years.

Case: A 70-year-old woman with a medical history notable for hypertension, previous SARS-CoV-2 pneumonia and heart failure with reduced left ventricular ejection fraction, presented with progressively worsening dyspnea that eventually manifested even at rest.

Abstract Body: **Decision-making:** To determine the underlying cause of heart failure coronary angiography was performed and revealed a fistula involving the right coronary artery and epicardial coronary vessels without any significant obstructive lesions (A). Further evaluation with coronary CT angiography revealed a complex coronary fistula with multiple points of origin: one arising from the mid-right coronary artery following a retroaortic path with a vascular network involving the right inferior pulmonary vein, right pulmonary branch and bronchial vessels. Additional origins were identified at the level of the descending aorta, also connecting to the vascular tangle (B), which

extended toward the right lower lobe an area that corresponded with pulmonary fibrosis (C).

Conclusion: Early identification of coronary artery fistulas is essential to avoid potentially serious hemodynamic complications. Management strategies range from conservative monitoring to invasive approaches such as surgical ligation or percutaneous transcatheter closure.

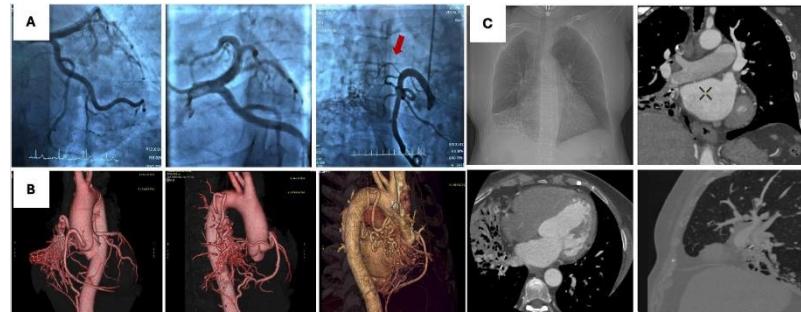


Image A: Right coronary artery with complex fistula and epicardial coronary vessels without any significant obstructive lesions. **Image B:** complex coronary fistula with multiple points of origin. **Image C:** complex coronary fistula extended toward the right lower lobe an area that corresponded with pulmonary fibrosis.

Control Number: 25-A-902-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-01

Poster Board Number: 01

Topic 1: Cardiac Arrhythmias

Publishing Title: ASSOCIATIONS BETWEEN CARDIOMETABOLIC RISK FACTORS, CARDIAC ANATOMY, AND OUTCOMES IN ATRIAL FIBRILLATION

Rafael Cortorreal, Ramón Romano, Tanya Massiel Mateo Garcia, Pamela

Author Block: Pina Santana, Cesar J. Herrera, CEDIMAT Cardiovascular Center, Santo Domingo, Dominican Republic

Background: Atrial fibrillation (AF) significantly impacts structural and functional cardiac remodeling, particularly influencing atrial dimensions and function. Left atrial enlargement serves as a marker of advanced atrial remodeling and is linked with adverse in-hospital outcomes and prolonged hospitalization. We aim to elucidate the relationship between cardiometabolic risk factors, cardiac anatomy, and clinical outcomes in patients with AF.

Methods: A retrospective analysis of AF patients (2016-2025) was conducted to assess demographics, comorbidities, echocardiography, and outcomes. Regression models identified associations between risk factors and clinical variables ($p<0.05$).

Results: Of the 1,000 patients with AF, the mean age was 70.1 (± 14.9), a male predominance of 55.3%, and most patients had paroxysmal AF (69%). Hypertension (76.2%) was the most prevalent risk factor, while diabetes (23.4%), CAD (15.7%), and CKD (8.8%) were considerably less prevalent. The mean left atrial diameter (LAD) was 42.7 (± 9.0 mm). Linear regression revealed that CKD (coef. =3.57, $p=0.001$) and CAD (coef. =1.94, $p=0.022$) were independently associated with a larger LA diameter. The mean LVEF

was 57.2% ($\pm 13.7\%$), with CAD (coef. = -6.20, $p<0.001$) and CKD (coef. = -4.58, $p=0.006$) being associated with lower EF values. The mean left atrial volume index (LAVI) was 42.4 (± 24.5) mL/m², with the overall model reaching statistical significance ($p=0.024$). Logistic regression demonstrated that higher LAVI (OR=0.979, $p<0.001$) was associated with a shorter hospital stay and increased in-hospital adverse events (OR=1.014, $p=0.015$).

Conclusion: In this large AF cohort, CKD and CAD were independently associated with greater LAD and lower LVEF. A higher LAVI was not associated with a longer hospital stay, however it was linked to an increased risk of in-hospital adverse events, supporting its role as a prognostic marker.

Control Number: 25-CCC-917-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-02

Poster Board Number: 02

Topic 1: Cardiac Arrhythmias

Publishing Title: ZERO FLUOROSCOPY PACEMAKER IMPLANTATION

Author Abel Salvador Becerra Flores, Hector E. Flores Salinas, J. Jesus Diaz Dávalos, Becerra Flores J. Antonio, Fatima Becerra Becerra, Paulina M. Nápoles Flores, Instituto mexicano del seguro social, centro medico nacional de occidente, Guadalajara, Jalisco, Mexico

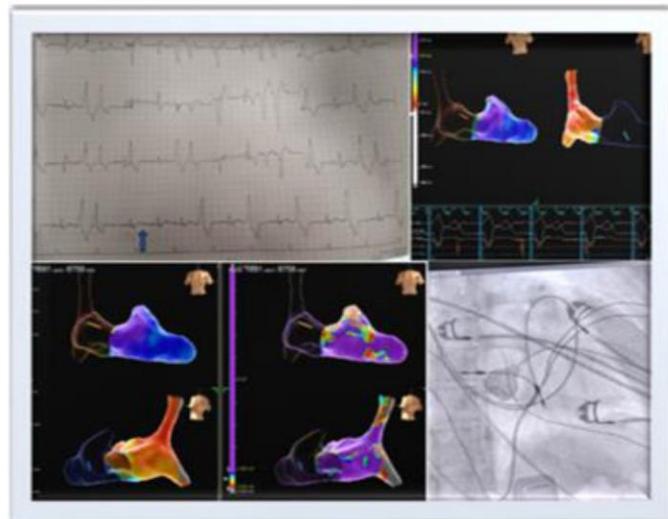
Background: 31-year-old pregnant woman (30 weeks) with corrected Tetralogy of Fallot presents with presyncope; ECG shows complete AV block and PVCs. A permanent DDD pacemaker is indicated.

Case: A permanent dual-chamber pacemaker is implanted using a zero-fluoroscopy technique, guided by 3D mapping, under obstetric supervision. After a failed attempt at a femoral approach, a puncture is made in the left subclavian vein. Then, active fixation electrodes are placed in the posteroseptal and basal regions of the right ventricle, and another electrode in the right atrial appendage.

Decision-making: The pacemaker implantation was successful. A postoperative chest ultrasound was performed, which showed no evidence of complications. Subsequently, the pregnancy was scheduled for termination at 38 weeks of gestation via cesarean section, with no additional complications.

Conclusion: Currently, three-dimensional mapping systems represent an

important tool in addressing these complications.



1. ECG de 12 derivaciones con evidencia de dissociación AV y extrasistoles ventriculares. 2. Procedimiento guiado por sistema tridimensional con evaluación de captura de ambos electrodos. 3. Única imagen obtenida por fluoroscopia con evidencia de adecuada colocación de electrodos Auriculo-Ventricular.

Control Number: 25-CCC-934-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-04

Poster Board Number: 04

Topic 1: Cardiac Arrhythmias

Publishing Title: RUNNING INTO TROUBLE- A CASE OF PAINFUL EXERCISE-INDUCED LEFT BUNDLE BRANCH BLOCK

Author Block: Abdullah Khalid, Saurav Kini, Tufts Medical Center, Boston, MA, USA

Background: Painful left bundle branch block (LBBB) syndrome is a rare condition characterized by exertional chest pain that coincides with rate-related LBBB, despite the absence of myocardial ischemia or obstructive coronary artery disease. The syndrome is increasingly recognized, and left bundle branch area pacing (LBBAP) has emerged as a physiologic therapy that can restore ventricular synchrony and alleviate symptoms.

Case: A 74-year-old male with a history of abdominal aortic ulcer status post vascular sleeve graft, hypertension, hyperlipidemia, and extensive family history of premature coronary artery disease presented with

Abstract Body: exertional chest pain. During symptoms, his Apple Watch recorded a wide complex rhythm that resolved with rest. A nuclear stress test reproduced his chest pain and demonstrated LBBB at peak exercise without perfusion defect. Coronary angiography showed non-obstructive disease (50% mid-LAD, 60% proximal RCA).

Decision-making: Given the strong correlation between chest pain and rate-related LBBB without evidence of ischemia, findings were felt to be consistent with painful LBBB syndrome. The patient underwent dual chamber pacemaker implantation with left bundle branch area pacing and subsequently reported improvement in exertional symptoms. At several month follow-up, however, he was found to be in new persistent LBBB but

remained asymptomatic. In-clinic magnet application over the device revealed a narrower QRS complex during left bundle pacing, prompting plans for device reprogramming. Given the occurrence of non-sustained ventricular tachycardia (NSVT) and progression of LBBB, evaluation for infiltrative cardiomyopathies is underway.

Conclusion: This case illustrates the diagnostic challenge of painful LBBB and the therapeutic utility of LBBAP. The absence of chest pain despite persistent LBBB supports the hypothesis that painful LBBB involves transient dyssynchrony-induced neural activation rather than fixed structural ischemia, and may reflect central adaptation over time. This case also highlights the diagnostic utility of consumer wearables in prompting evaluation of dynamic conduction abnormalities.

Control Number: 25-A-840-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-05

Poster Board Number: 05

Topic 1: Cardiovascular Disease Prevention

Publishing Title: TIRZEPATIDE FOR PATIENTS WITH INCREASED CARDIOVASCULAR RISK ASSOCIATED WITH DIABETES MELLITUS OR OBESITY: A SYSTEMATIC REVIEW AND META-ANALYSIS

Author Block: Marcílio De Oliveira Filho, Camila Fagundes, Pedro Henrique Tavares Fogaça, Mateus Diniz Marques, Diego Chemello, Valéria Bayer, Eduardo Porto Santos, THAIS FRITZEN, Eduarda Feijó, Guilherme Bochi, Faculdade de Medicina de Barbacena, Barbacena, Brazil

Background: Type 2 diabetes mellitus (T2DM) and obesity increase cardiovascular disease risk. Tirzepatide, a dual GIP/GLP-1 receptor agonist, has demonstrated superior metabolic effects. Evaluate the effects of tirzepatide on cardiovascular risk markers and adverse events in patients with T2DM or obesity.

Methods: We searched PubMed, Embase, and the Cochrane Library up to March 2025 for randomized controlled trials. A random-effects meta-analysis was conducted using mean differences (MD) or odds ratios (OR) with 95% confidence intervals (CI). Heterogeneity was assessed with the I^2 statistic.

Results: Four trials comprising 5,143 patients were included. Tirzepatide reduced SBP compared to placebo or insulin across all doses (MD: -5.52 mmHg; 95% CI: -6.27 to -4.78; $p<0.00001$), with consistent reductions at 5 mg (MD: -5.15 mmHg; $p<0.00001$), 10 mg (MD: -6.37 mmHg; $p<0.0001$), and 15 mg (MD: -5.8 mmHg; $p<0.00001$). DBP also decreased with 5 mg (MD: -2.85 mmHg; $p=0.02$) and 15 mg (MD: -2.53 mmHg; $p=0.005$), and in pooled

analysis (MD: -1.77 mmHg; $p<0.00001$). Tirzepatide reduced BMI (pooled MD: -5.27 kg/m²; 95% CI: -5.89 to -4.66; $p<0.00001$), with greater reductions at higher doses. FSG decreased significantly at 15 mg (MD: -9.31 mg/dL; $p<0.00001$) and in pooled analysis (MD: -6.59 mg/dL; $p=0.0004$). LDL levels also declined (pooled MD: -7.51 mg/dL; $p=0.0002$), with the 15 mg dose showing the largest reduction (MD: -12.48 mg/dL; $p<0.0001$). HDL increased in pooled analysis (MD: 1.42 mg/dL; $p=0.03$).

Conclusion: Tirzepatide may improve cardiovascular risk markers in patients with T2DM or obesity.

Control Number: 25-A-842-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-06

Poster Board Number: 06

Topic 1: Cardiovascular Disease Prevention

Publishing Title: POSTOPERATIVE INFECTIONS AND MORTALITY AFTER CARDIAC SURGERY IN A RESOURCE-LIMITED SETTING: KEY PREDICTIVE FACTORS

Author Block: Marcílio De Oliveira Filho, Camila Fagundes, Diego Chemello, Luana Quintana Marchesan, Vitoria Kohlrausch, Rafael Fortes Locateli, Eduardo Porto Santos, Isabella Brixner, Valéria Bayer, Mateus Diniz Marques, Faculdade de Medicina de Barbacena, Barbacena, Brazil

Background: Identifying factors associated with hospital-acquired infections (HAs) and in-hospital mortality after cardiac surgery is essential to improve patient outcomes. This study aimed to investigate independent predictors of postoperative HAs and death among adults undergoing cardiac surgery.

Methods: We conducted a retrospective cohort analysis including 880 consecutive adult patients who underwent cardiac surgery from 2015 to 2021. Multivariable logistic regression models were used to identify predictors of postoperative HAI and in-hospital mortality

Results: Patients who developed postoperative HAs had higher predicted surgical risk based on the EuroSCORE (4.01% vs. 2.51%; P=0.001), experienced longer hospital stays prior to surgery (9.44 vs. 8.28 days; P=0.049), and had prolonged overall hospitalization (28.41 vs. 16.16 days; P<0.001). In adjusted analyses, prolonged preoperative hospital stay (OR 1.024; 95% CI 1.005-1.044; P=0.009), increased body mass index (OR 1.043; 95% CI 1.008-1.079; P=0.015), and extended cardiopulmonary bypass duration (OR 1.007; 95% CI 1.003-1.012; P<0.001) were

Abstract Body:

independently associated with higher odds of postoperative HAI. Furthermore, both longer extracorporeal circulation time (OR 1.012; 95% CI 1.006-1.019; P<0.001) and the presence of postoperative HAI (OR 2.418; 95% CI 1.385-4.233; P=0.001) were significantly linked to increased in-hospital mortality.

Conclusion: Prolonged hospitalization before surgery, higher BMI, and extended cardiopulmonary bypass time are important risk factors for postoperative HAIs. Additionally, both prolonged bypass duration and postoperative HAIs significantly elevate the risk of in-hospital mortality after cardiac surgery.

Control Number: 25-CCC-861-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-07

Poster Board Number: 07

Topic 1: Cardiovascular Disease Prevention

Publishing Title: UNREPAIRED AORTOPULMONARY WINDOW LEADING TO EISENMENGER SYNDROME: SUCCESSFUL MANAGEMENT WITH SILDENAFIL MONOTHERAPY

Monserrath Basilio Téllez, Romina Daniela Pérez Domínguez, Jesús Alberto Blanco Hernández, Christian Guillermo Tapia Cervantes, Ana Alarcón

Author Block: Martínez, Jonathan Reyes-Rivera, Carla Domínguez, Andrea Magdalena Luna Hernández, Karla Alejandra Pupiales Dávila, Jorge Sanchez, Stephanie Angulo, Edgar Garcia Cruz, Instituto Nacional de Cardiología Ignacio Chavez, Ciudad de México, Mexico

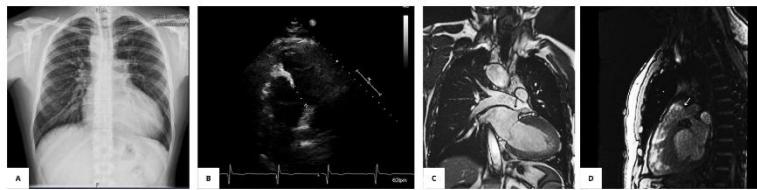
Background: Aortopulmonary window (APW) is a rare congenital heart disease (CHD) (<2%) that, if not corrected early in life, progresses to Eisenmenger syndrome.

Case: An 18-year-old male with a history of an unspecified heart murmur, with no prior diagnostic work-up or treatment. He presented to the

Abstract Body: emergency department with dyspnea. Transthoracic echocardiography revealed an APW and a high probability of pulmonary arterial hypertension (PAH). Cardiac catheterization confirmed PAH (mPAP 86 mmHg, PVR 5.79 WU), with right-to-left shunting through the defect. Pulmonary vasodilator therapy with sildenafil was initiated, with good tolerance and clinical response. At age 25, he developed paroxysmal atrial fibrillation, which reverted with antiarrhythmic therapy. He is currently 31 years old, remains in NYHA class I, and has low-risk PAH.

Decision-making: We present the case of a patient with unrepaired APW and Eisenmenger syndrome, in whom monotherapy showed favorable response, especially considering limited access to higher-cost vasodilators in our setting.

Conclusion: This case shows that phosphodiesterase inhibitors may be an effective and low-cost treatment option when initiated early, and emphasizes the importance of early diagnosis and repair of congenital heart defects. It also underscores the value of appropriate treatment and close follow-up in patients with PAH associated with congenital heart disease, aiming to improve quality of life and delay clinical progression.



A. Radiografía de tórax PA. Dilatación de la arteria pulmonar con obliteración parcial de la ventana aortopulmonar e hilio pulmonar prominente. **B.** Ecocardiograma Transtorácico. Ventana Aarto Pulmonar, diámetro de 27 mm **C y D.** Resonancia magnética cardíaca. Ventana aortopulmonar.

Control Number: 25-A-874-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-08

Poster Board Number: 08

Topic 1: Cardiovascular Disease Prevention

Publishing Title: ARE FXI/XIA INHIBITORS THE SAFER ANTICOAGULANTS WE'VE BEEN WAITING FOR? - A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS IN 16,169 PATIENTS

Author Arath Josué Campos Muñoz, Adolfo Calderón-Fernández, Mario Cesar Torres Chavez, Erick Ramírez Muro, Andrea Palacios Navas, Sandra Lizeth Rodriguez Rodriguez, Victor Andres Castillo, Elva Alejandra Manjarrez Granados, Universidad Cuauhtémoc, Aguascalientes, Mexico

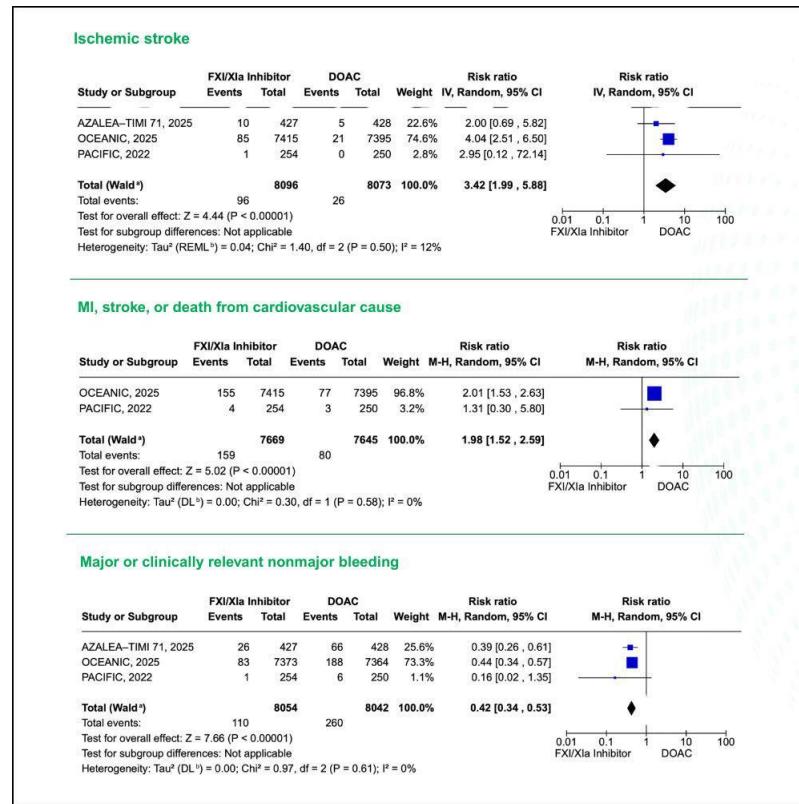
Background: Atrial fibrillation affects over 50 million people globally and increases stroke risk fivefold. Although DOACs are preferred over VKAs due to better safety, bleeding—especially gastrointestinal and intracranial—remains a major limitation, often causing undertreatment. FXI/Xla inhibitors (e.g., abelacimab, asundexian) offer a novel strategy to prevent thrombosis while preserving hemostasis.

Abstract Body: **Methods:** We systematically reviewed RCTs (PubMed, Embase, Scopus, Web of Science; through April 2025) comparing FXI/Xla inhibitors versus DOACs in atrial fibrillation or high thrombotic risk. Primary outcomes: stroke/systemic embolism, ischemic stroke, cardiovascular death, major bleeding, and clinically relevant non-major bleeding. Risk ratios (RR) with 95% CIs were pooled using a random-effects model.

Results: Among 16,169 patients, FXI/Xla inhibitors significantly reduced ISTH major bleeding (RR 0.32, 95% CI: 0.21-0.49) and clinically relevant non-major bleeding (RR 0.40, 95% CI: 0.32-0.51), both $p < 0.00001$. However,

they increased ischemic stroke (RR 4.04, 95% CI: 2.51-6.50), stroke/systemic embolism (RR 2.56, 95% CI: 1.01-6.46), and MI/stroke/CV death (RR 1.98, 95% CI: 1.52-2.59). No significant difference in all-cause mortality (RR 0.82, $p = 0.16$).

Conclusion: FXI/Xla inhibitors reduce major and clinically relevant bleeding by over 60% but raise ischemic and thrombotic events. Their use may be limited to patients at high bleeding risk.



Control Number: 25-A-920-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-09

Poster Board Number: 09

Topic 1: Cardiovascular Disease Prevention

Publishing Title: CHANGES IN CARDIOVASCULAR RISK FACTORS AFTER MODERATE PHYSICAL ACTIVITY AND LOW CALORIE DIET PROGRAM INTERVENTION IN FOOTWEAR INDUSTRY WORKERS WITH METABOLIC SYNDROME

Author Javier Andres Ascencio Guerrero, Ilani Paola Santoyo Pérez, Ana L. Gonzalez Yebra, Daniela B. Muñoz López, Sergio E. Solorio Meza, Martha A. Hernández-González, Beatriz Gonzalez Yebra, Medicine and Nutrition Department, University of Guanajuato, León, Guanajuato, Mexico

Background: Metabolic syndrome combines individual cardiovascular risk factors that also increase overall cardiovascular risk. This study aimed to evaluate the reduction of risk factors in footwear industry workers with metabolic syndrome following an intervention program.

Methods: Quasi-experimental study including industry workers aged 18 to 65 years with a prior diagnosis of metabolic syndrome and no significant metabolic complications. The 6-month intervention combined moderate intensity aerobic exercise on a stationary bicycle with a low-calorie diet composed of 50-55% carbohydrates, 25-30% lipids, and 15-20% proteins.

Results: Fifteen participants (mean age 39.6 years, 60% female) completed the intervention. After 6 months, significant reductions were observed in waist circumference ($p <0.001$), systolic blood pressure ($p 0.005$), glucose ($p <0.001$) and triglyceride levels ($p 0.001$). Although the increase in HDL cholesterol was not statistically significant, levels rose from 39.73 to 41.93. No participants smoked and the change in alcohol consumption decreased

Abstract Body:

from 46% to 20%. Overall, the prevalence of metabolic syndrome also decreased in the study group.

Conclusion: The 6-month individualized intervention program significantly improved key cardiovascular risk factors in industry workers with metabolic syndrome. These results highlight the effectiveness of comprehensive lifestyle interventions in reducing both the components and overall prevalence of metabolic syndrome.

A

Clinical and biochemical characteristics after completing the intervention (n = 15)

Clinical / Biochemical	Before (n = 15)	After (n = 15)	t/w p
WC	89.5 (80.5-116)*	81.5 (74-103)*	<0.001
SBP	127.8 (\pm 20.04)	118.93 (\pm 22.25)	0.005
DBP	84 (\pm 12.18)	79.45 (\pm 15.76)	0.113
GLU	108 (87-192)*	84 (67-105)*	<0.001
HDL	39.73 (\pm 6.29)	41.93 (\pm 8)	0.369
TG	139 (81-373)*	75 (46-152)*	0.001
Cr	0.800 (0.600-1.100)*	0.700 (0.600-1.100)*	1
UAc	4.82 (\pm 1.41)	4.6 (\pm 1.14)	0.294
AI	4.57 (\pm 1.02)	4.28 (\pm 0.62)	0.389
TC	188 (146-205)*	182 (142-193)*	0.726
LDL	121 (73-136)*	122 (96-139)*	0.477
VLDL	24.55 (\pm 6.89)	18.11 (\pm 7.06)	0.075

Abbreviations: WC, waist circumference; SBP, systolic blood pressure; DBP, diastolic blood pressure; GLU, glucose; HDL, cholesterol HDL; TG, triglycerides

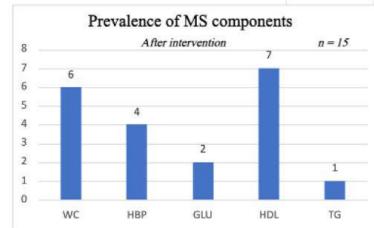
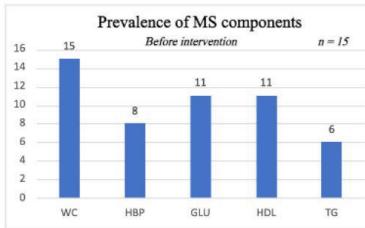
Cr, creatinine; UAc, uric acid; AI, aterogenic index; TC, total cholesterol

LDL, cholesterol LDL; VLDL, cholesterol VLDL

Values presented as mean (standard deviation), *median (range)

t/w: Student's T test / Wilcoxon signed-rank test

B



Abbreviations: MS, metabolic syndrome; WC, waist circumference; HBP, High blood pressure
GLU, glucose; HDL, cholesterol HDL; TG, triglycerides

Control Number: 25-A-953-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-10

Poster Board Number: 10

Topic 1: Cardiovascular Disease Prevention

Publishing Title: CARDIOVASCULAR RISK TRENDS IN MEXICO: A RETROSPECTIVE ANALYSIS OF NATIONAL HEALTH SURVEYS, 2016-2023

Author Block: Daniel Paz, Omar Y. Bello-Chavolla, Instituto Nacional de Salud Pública, Mexico City, Mexico, Instituto Nacional de Geriatría, Mexico City, Mexico

Background: Most cardiovascular disease (CVD) risk models were developed using data from high-income countries or from low- and middle-income settings outside Latin America and the Caribbean (LAC). We estimated trends in CVD risk in Mexico using two region-specific tools.

Methods: We analyzed data from the 2016-2023 National Health and Nutrition Surveys to estimate CVD risk using the Globorisk-LAC (lab-based and office-based) and WHO models. Risk factors included systolic blood pressure, total cholesterol, diabetes, smoking, BMI, sex, and age. We estimated risk category prevalence and control of key factors by risk level.

Abstract Body: **Results:** From 2016 to 2023, average 10-year CVD risk increased across all models. In 2023, Globorisk-LAC lab- and office-based models estimated average risks of 9.5% (95% CI: 8.0-11.1) and 9.2% (95% CI: 7.8-10.5). The WHO model yielded a lower 4.4% (95% CI: 3.8-4.9), potentially underestimating risk. Statin use among those eligible by Globorisk-LAC lab-based criteria rose from 1.0% (95% CI: 0.4-1.7) in 2016 to 59.0% (95% CI: 43.6-74.3) in 2023. LDL-C control improved in low, moderate, and high-risk groups, but worsened in the very high-risk group. In 2023, glycemic control reached 78.6% (95% CI: 72.4-84.7) and blood pressure control was 46.5% (95% CI: 39.3-53.7), representing 37.4 million adults.

Conclusion: CVD risk has risen steadily in Mexico. Despite improved statin use and LDL-C control in most risk groups, deterioration among very high-risk individuals highlights a gap in secondary prevention. Persistent suboptimal blood pressure control also signals an urgent need for targeted interventions.

Control Number: 25-CCC-824-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-11

Poster Board Number: 11

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CARDIAC TAMPONADE SECONDARY TO RIGHT PLEURAL EFFUSION IN A POSTOPERATIVE PATIENT FOLLOWING CORONARY ARTERY BYPASS GRAFTING

José Alfredo Delgado Cruz, SR, Ricardo Eduardo Quirazco Córdova, Karen Arratia Carlin, Jose Abraham Luna Herbert, Raúl Rodríguez, Bernardo

Author Guerrero del Moral, Alberto Isaí Rodríguez Vázquez, Fernando Huerta
Block: Liceaga, Agustín Armando Ruiz Benítez, Luis Raul Cano del Val Meraz, José Emmanuel Zúñiga Espinosa, Hospital Central Sur de Alta Especialidad, Pemex, Ciudad de México, Mexico

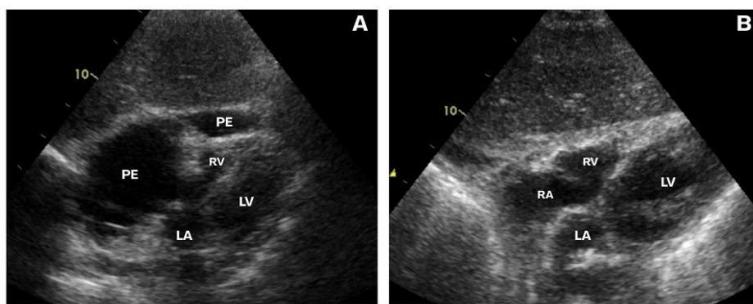
Background: 60-year-old woman with a history of type 2 diabetes mellitus and arterial hypertension, as well as a prior ST-segment elevation myocardial infarction (STEMI) that was not treated with thrombolysis. Consequently, she underwent coronary angiography, which revealed three-vessel coronary artery disease.

Abstract Body: **Case:** The patient underwent coronary artery bypass grafting (CABG), with an arterial graft to the left anterior descending artery and two reversed saphenous vein grafts to the obtuse marginal and first diagonal branches. Seventy-two hours after the procedure, she developed sudden and progressive hemodynamic deterioration.

Decision-making: Transthoracic echocardiography revealed partial collapse of the right heart chambers during diastole, confirming the diagnosis of selective postoperative cardiac tamponade. The patient experienced

circulatory collapse, prompting urgent mediastinal exploration, which revealed a right pleural effusion of approximately 400 mL causing pleural bulging and compression of the right heart chambers. Collection were drained, resulting in abrupt hemodynamic improvement.

Conclusion: Although cardiac tamponade secondary to pleural effusion is a rare entity, it has been reported in postoperative patients in whom increased intrathoracic pressure is transmitted to the cardiac chambers. Early suspicion is crucial, as management—such as pleural fluid drainage in this case—differs from that of tamponade due to pericardial effusion.



Transthoracic echocardiogram, subxiphoid view, demonstrating **A**) pleural effusion (PE) causing complete collapse of the right atrium (RA), partial collapse of the right ventricle (RV) and **B**) right heart chambers re-expansion after pleural effusion drainage. LV: Left ventricle, LA: Left atrium.

Control Number: 25-CCC-827-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-12

Poster Board Number: 12

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: THE IMPORTANCE OF CONSIDERING HCM PHENOCOPIES: A CASE REPORT

Author Block: Cintia Carina Garista Solis, Emilio Rivas Cruz, Montserrat Meyer Roqueñí, Francisco Javier Roldán Gómez, Victor José Leal Alcantara, María Cecilia Escalante Seyffert, Enrique Alexander Berrios Bárcenas, Instituto Nacional de Cardiología- Ignacio Chávez, Mexico City, Mexico

Background: Hypertrophic cardiomyopathy (HCM) is a genetic disease associated with sudden cardiac death and progression to heart failure. Other conditions, known as phenocopies, can mimic HCM but may have different presentations and prognoses.

Case: We present a 29-year-old woman initially diagnosed with non-obstructive biventricular HCM. Her medical history included primary hypothyroidism, type 2 diabetes, and a borderline prolonged QT interval. Family history revealed Ebstein anomaly and early-onset heart failure. On physical examination, she had short stature and hypertelorism, raising suspicion for a syndromic disorder. Noonan syndrome was suspected and molecularly confirmed. Cardiac studies showed left ventricular hypertrophy, severe biatrial enlargement, and diastolic dysfunction without left ventricular outflow tract obstruction. Cardiac MRI revealed asymmetric septal hypertrophy (maximum diastolic thickness 21 mm), right ventricular hypertrophy (lateral wall 8.5 mm), mildly elevated T1 mapping (1073 ms), normal extracellular volume (29%), and minimal junctional fibrosis. LVEF was 53%. Her HCM-SCD risk score was low (2.34%). Holter monitoring

Abstract Body:

showed no significant arrhythmias. After two years, LVEF declined to 26%.

Decision-making: The presence of red flags suggested a phenocopy rather than classic HCM. Syndromic features and family history supported a broader genetic evaluation. MRI findings and clinical progression reinforced the atypical nature of her disease.

Conclusion: In HCM patients with red flags for phenocopies, comprehensive and genetic assessment is key to refining diagnosis and guiding treatment. Although guidelines are limited for these cases, an accurate diagnosis enables timely management of complications.

Control Number: 25-CCC-830-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-13

Poster Board Number: 13

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PERIPARTUM CARDIOMYOPATHY AS INITIAL PRESENTATION OF FAMILIAL DILATED CARDIOMYOPATHY TYPE 3

Author Block: Karen Lizeth Andrade Arizmendi, Montserrat Meyer Roqueñí, Emilio Rivas Cruz, Cintia Carina Garista Solis, Victor José Leal Alcántara, María Cecilia Escalante Seyffert, Francisco Javier Roldán Gómez, Enrique Alexander Berrios Bárcenas, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Peripartum cardiomyopathy (PPCM) is a rare cause of heart failure occurring in late pregnancy or early postpartum. A genetic overlap with familial dilated cardiomyopathy (FDCM) has been recognized.

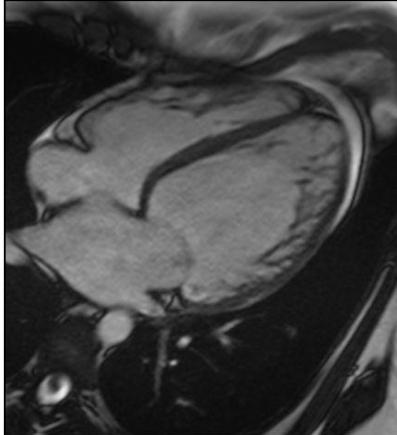
Case: Case 1: A 28-year-old female with no prior history developed severe preeclampsia in the third trimester, requiring cesarean delivery. On postpartum day 3, she presented with respiratory failure and cardiogenic shock, requiring mechanical ventilation and levosimendan. TTE showed LVEF 14%, dilated LV, grade III diastolic dysfunction, and severe MR. CMR revealed LV hypertrabeculation, mild non-ischemic LGE, increased T1/T2, and 33% ECV. Case 2: Her 33-year-old sister developed dyspnea, leg edema, and chest pain after hearing her sister's diagnosis. PE and LVEF 24% were documented. She developed respiratory failure and shock, requiring ventilation and vasopressors. Takotsubo, thrombophilia, connective tissue disease, and Chagas were ruled out. CMR showed similar findings with 37% ECV.

Decision-making: Both showed persistent LV dysfunction. Case 1 tested positive for a pathogenic TNNT2 variant (FDCM type 3, LV noncompaction). Case 2's test is pending.

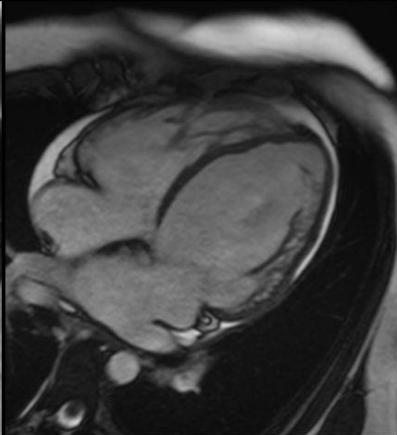
Conclusion: These cases highlight the overlap between PPCM and FDCM and the need for early genetic screening in at-risk women.

Four-chamber cine cardiac MRI images from both cases showing left ventricular dilation and hypertrabeculation.

Caso 1



Caso 2



Control Number: 25-CCC-833-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-14

Poster Board Number: 14

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EARLY-STAGE FABRY DISEASE: WHEN CLASSICAL EVALUATION IS NOT ENOUGH

Author Block: Emilio Rivas Cruz, Cintia Carina Garista Solis, Montserrat Meyer Roqueñí, Victor José Leal Alcantara, Maria Cecilia Escalante Seyffert, Francisco Javier Roldán Gómez, Enrique Alexander Berríos Bárcenas, Instituto Nacional de Cardiología- Ignacio Chávez, Mexico City, Mexico

Background: Fabry disease (FD) is an X-linked lysosomal storage disorder caused by mutations in the GLA gene. Traditionally, males present with a more aggressive phenotype, often developing renal failure and cardiac involvement at an early age. Early initiation of enzyme replacement therapy (ERT) is crucial to prevent such complications. However, current treatment guidelines require evidence of left ventricular hypertrophy or proteinuria to justify ERT. We present the case of an adult male with a confirmed FD

Abstract Body: diagnosis in whom the decision to initiate treatment was challenging due to subclinical findings.

Case: A 30-year-old male with genetically confirmed FD (pathogenic variant in the GLA gene). Family history includes his mother and sister, both diagnosed with FD. He reports heat-induced acroparesthesias and carpal tunnel syndrome. No angiokeratomas or cornea verticillata were observed. Initial cardiovascular evaluation revealed no abnormalities on electrocardiogram or echocardiogram. Microproteinuria was not significant (233 mg/24 hrs). Cardiac MRI showed no ventricular hypertrophy; however, it revealed decreased native T1 mapping (899 ms), mild basal inferoseptal

intramyocardial enhancement, and a left ventricular ejection fraction of 47%. The patient is currently awaiting further evaluation, including renal biopsy, to guide the decision on ERT initiation.

Decision-making: Management of FD requires a multidisciplinary approach. Although this patient has no overt cardiac or renal involvement, close surveillance is essential. Cardiac MRI can detect pre-hypertrophic myocardial changes that may influence prognosis. Renal biopsy may provide histological confirmation of FD-related nephropathy, which would support ERT initiation. Coordinated follow-up with nephrology and cardiology is crucial for timely therapeutic decisions.

Conclusion: Fabry disease in males often follows an aggressive course, with classic manifestations depending on residual enzymatic activity. More sensitive diagnostic tools are needed to detect organ damage at earlier stages. Cardiac MRI offers the advantage of identifying myocardial tissue changes before the development of hypertrophy.

Control Number: 25-A-838-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-15

Poster Board Number: 15

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PREDICTORS OF INAPPROPRIATE SHOCKS IN HYPERTROPHIC CARDIOMYOPATHY PATIENTS WITH IMPLANTABLE CARDIOVERTER-DEFIBRILLATORS: CLINICAL ANALYSIS AND PREVENTION STRATEGIES

Author Emilio Rivas Cruz, Cintia Carina Garista Solis, Montserrat Meyer Roquení,
Block: Victor José Leal Alcantara, Maria Cecilia Escalante Seyffert, Francisco Javier Roldán Gómez, Enrique Alexander Berrios Bárcenas, Instituto Nacional de Cardiología- Ignacio Chávez, Mexico City, Mexico

Background: Inappropriate shocks (IS) in hypertrophic cardiomyopathy (HCM) patients with implantable cardioverter-defibrillators (ICDs) significantly impact quality of life and prognosis, yet predictors remain poorly characterized.

Methods: Retrospective analysis of 111 HCM-ICD patients (mean age 36 ± 17 y, 43% female). We evaluated clinical (atrial fibrillation [AF], non-sustained ventricular tachycardia [NSVT]), echocardiographic (left atrial [LA] size), and device-related variables. Statistical analysis included chi-square, Mann-Whitney U tests, and multivariate logistic regression.

Results: AF was associated with a 5.3-fold increased risk of IS (OR=5.3, CI95%:1.7-16.5; $p=0.002$). Additionally, NSVT and LA enlargement were identified as independent predictors of IS. No significant associations were found with age, gender, or ICD type.

Conclusion: AF, NSVT, and LA enlargement identify HCM-ICD patients at highest IS risk. Combined rhythm control and device reprogramming could

Abstract

Body:

prevent >60% of IS events, based on our predictive model.

Variable	IS+(n=13)	IS-(n=98)	p-value
AF	61.5%	18.4%	0.002
NSVT	53.8%	28.6%	0.04
LA(mm)	48±8	42±8	0.03

Control Number: 25-A-847-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-16

Poster Board Number: 16

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EFFICACY OF CARDIAC MYOSIN INHIBITORS IN SYMPTOMATIC HYPERTROPHIC CARDIOMYOPATHY: A META-ANALYSIS UPDATE AND SYSTEMATIC REVIEW

Marcílio De Oliveira Filho, Pedro Fogaça, Gabriel Grando Alves, Camila

Author Block: Fagundes, Camila Fagundes, Fernanda Lavarda Scheinpflug, Mateus Diniz Marques, Faculdade de Medicina de Barbacena, Barbacena, Brazil

Background: To provide updated efficacy data on cardiac myosin inhibitors (aficamten or mavacamten) in symptomatic hypertrophic cardiomyopathy (HCM).

Methods: We searched PubMed, Embase, and Cochrane databases for randomized controlled trials (RCTs) comparing cardiac myosin inhibitors (CMI) to placebo in symptomatic HCM, reporting: New York Heart Association (NYHA) functional class improvement; change from baseline in Kansas City Cardiomyopathy Questionnaire clinical summary score

Abstract Body: (KCCQ-CSS); percent change from baseline in left ventricular outflow tract (LVOT) gradient at rest and after Valsalva; and serious adverse events. Heterogeneity was examined with I^2 statistics. p-values <0.05 indicated statistical significance. Continuous endpoints were analyzed using pooled mean difference (MD) and binary endpoints using odds ratios, both with 95% confidence intervals (CIs). Statistical analyses were conducted using Review Manager Web software.

Results: We included six RCTs with 826 patients, 443 of whom received CMI. Compared to placebo, NYHA class improvement was more frequent in

patients receiving CMI (OR 4.10; 95% CI 2.79-6.02; $p<0.00001$), with significant differences in KCCQ-CCS change (MD 7.15; 95% CI 4.21-10.10; $p<0.00001$), and in LVOT gradient change at rest (MD -38.25; 95% CI -46.76, -29.74; $p<0.00001$) and with Valsalva (MD -46.49; 95% CI -54.70, -38.27; $p<0.00001$). There were no significant differences in serious adverse events (OR 0.64; 95% CI 0.31-1.31; $p=0.22$).

Conclusion: CMI shows greater efficacy in treating symptomatic HCM.

Control Number: 25-CCC-850-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-17

Poster Board Number: 17

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HEART IN CRISIS: TAKOTSUBO SYNDROME INDUCED BY CHRONIC HEMODIALYSIS AN UNDERRECOGNIZED COMPLICATION

Raúl Pinales Salas, Leonardo Elihu Perales Rendon, Cesar Alejandro Mascorro, Javier Torres, Alberto Leal Valdez, Esau Vazquez, Roberto Anjed

Author Velazco, SR, Rafael Pedraza, Alejandro Ordaz, Edgar Francisco Carrizales-Sepulveda, Ramiro Flores-Ramirez, Hospital Universitario "Dr. José Eleuterio González", Universidad Autónoma de Nuevo León, Monterrey, Nuevo León, Mexico

Background: Takotsubo syndrome (TTS) secondary to chronic hemodialysis remains underrecognized, particularly in patients with multiple comorbidities.

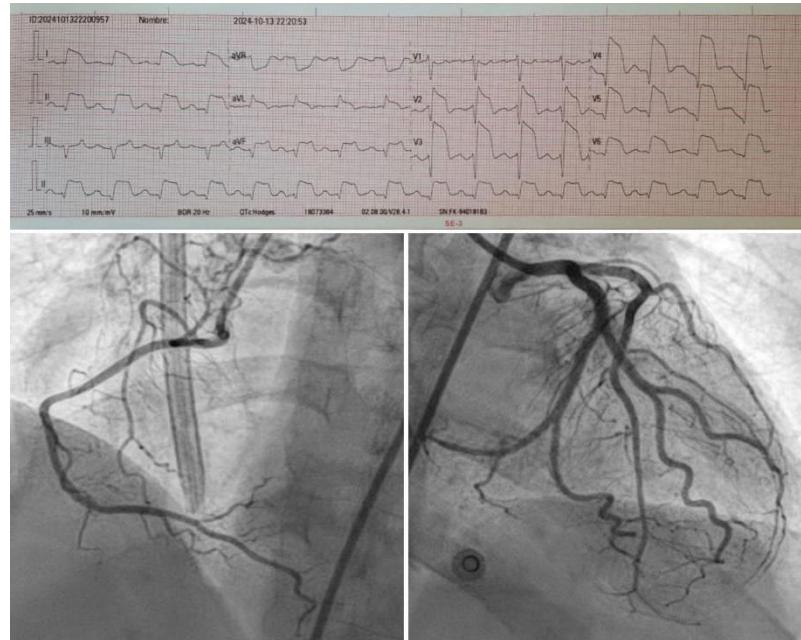
Case: A 64-year-old woman with a history of systemic arterial hypertension, type 2 diabetes mellitus, colorectal cancer currently in remission, and CKD on maintenance hemodialysis for four years, presented during a routine dialysis session with acute onset of diaphoresis, dyspnea at rest, chest discomfort, vital signs BP 60/40 mmHg, HR 102 bpm. Physical examination with signs of hypoperfusion. Vasopressor support was initiated. ECG showed ST-segment elevation in leads V2-V6, I-aVL, II-aVF, and first-degree AV block. The patient was taken for emergency coronary angiography, which revealed no significant obstructive lesions in the RCA, LAD or LCx (Figure 1). Transthoracic echocardiography (TTE) showed severe left ventricular systolic dysfunction, LVEF of 20%, apical ballooning pattern, findings consistent with

Abstract Body:

TTS. Laboratory workup showed: high-sensitivity troponin I of 210 ng/L.

Decision-making: Given the absence of coronary obstruction and the typical pattern in TTE, a diagnosis of TTS was established. Despite initial hemodynamic support, the patient suffered a cardiorespiratory arrest within few hours of intervention.

Conclusion: This case highlights the potential for TTS to occur in patients undergoing chronic hemodialysis a population frequently exposed to physiological stress.



Control Number: 25-CCC-855-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-18

Poster Board Number: 18

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EARLY IDENTIFICATION OF MYOCARDIAL INVOLVEMENT IN FABRY DISEASE, ROLE OF CARDIAC MAGNETIC RESONANCE IMAGING

Author Block: Leslie Viridiana Muñiz Suárez, Rafael Sanez, Miguel A. Cruz, Elisa E. De León flores, Omar A. Gamboa Abundiz, Pablo A. Hernández Soto, Miguel A. Delgado Jimenez, Karen De Icaza Benet, Jose C. Rodriguez Gonzalez, Martha Rosales Barajas, Jairo Avellaneda Herrera, Omar López Pérez, Instituto nacional de Cardiología, Ciudad de México, Mexico

Background: Anderson-Fabry disease is an X-linked disorder from pathogenic GLA variants that cause α -galactosidase A deficiency and lysosomal globotriaosylceramide (Gb3) accumulation. Cardiac involvement drives morbidity and mortality.

Case: A 30-year-old male with a family history of Fabry disease under outpatient follow-up. Clinically, he only presented with acroparesthesias, with no cardiovascular symptoms. As part of the work-up, laboratory tests were ordered, genetic testing revealed a hemizygous variant in the GLA gene: c.870G>C. Transthoracic echocardiography showed no left ventricular hypertrophy (LVH), although global longitudinal strain was impaired. Cardiac magnetic resonance imaging (CMR): left ventricle with mild systolic dysfunction. Native T1 mapping showed decreased inversion times. Late gadolinium enhancement (LGE) imaging revealed linear intramyocardial enhancement.

Decision-making: Based on these findings, enzyme replacement therapy

Abstract Body: As part of the work-up, laboratory tests were ordered, genetic testing revealed a hemizygous variant in the GLA gene: c.870G>C. Transthoracic echocardiography showed no left ventricular

(ERT) was initiated. CMR has become central in the early diagnosis and staging of the disease. Characteristic findings include mid-wall LGE and low native T1 values, reflects myocardial glycosphingolipid storage and may precede the development of significant LVH.

Conclusion: CMR provides critical information with important prognostic and therapeutic implications. Early detection of cardiac involvement enables therapeutic interventions that can improve the quality of life and prognosis of patients with Fabry disease.

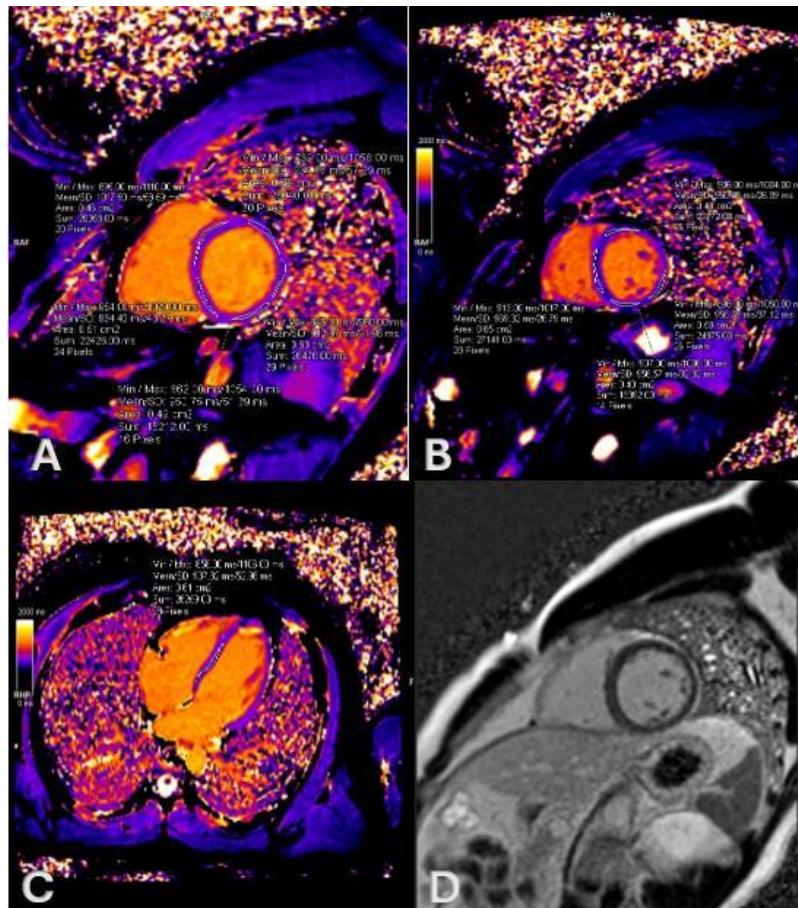


Image A) T1 mapping in a basal short-axis view showing decreased inversion times (IT) in the anterior, lateral, and inferoseptal segments. B) Mid-ventricular short axis with reduced IT in the anteroseptal and anterior segments, as well as in the septal and anterior regions. C) Four-chamber view demonstrating decreased IT in the inferoseptal wall. D) Inversion recovery sequence showing linear intramyocardial late gadolinium enhancement (LGE) in the inferoseptal region.

Control Number: 25-CCC-862-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-19

Poster Board Number: 19

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HIGH FIBROTIC BURDEN AND SEVERE VENTRICULAR DYSFUNCTION IN A PATIENT WITH HEMOCHROMATOSIS A DIAGNOSTIC AND THERAPEUTIC CHALLENGE

Author Block: JAIME PARRA, Alejandro Tobon Velez, Valentina Aristizabal, Sebastian Naranjo, Clinica CES, MEDELLÍN, Colombia

Background: Infiltrative heart disease involves the abnormal deposit of substances within heart tissue. Iron-overload syndromes may be hereditary or acquired, Cardiac hemochromatosis is associated with a dilated cardiomyopathy with reduced ejection fraction and can lead to acute congestive heart failure (CHF). Cardiac magnetic resonance is the gold standard for the diagnosis and ECG findings can increase the index of suspicion

Case: A 47-year-old male with HIV and hemochromatosis was admitted with symptoms of CHF. ECG featured low voltage QRS and non-specific ST and T wave abnormalities Transthoracic echocardiography revealed reduced ejection fraction. Arteriography ruled out ischemic causes. Cardiac MRI showed infiltrative disease with a T2* of 7ms (severe), iron deposition, and 40-45% cardiac fibrosis burden. Iron studies showed ferritin levels at 10870 mg/ml

Decision-making: The severe iron overload and significant fibrotic load led to acute HFrEF, requiring the initial exclusion of CAD. Then Cardiac MRI confirmed the severe infiltrative etiology. This patient had no treatment for his underlying condition, because phlebotomies were discontinued due to

hemodynamic intolerance, which also limited quadruple heart failure therapy and Ivabradine was not added due to interactions with antiretroviral medications. Also previously he presented a mild skin reaction due to chelators which made him stop the treatment, but in this new scenario with HF and chronic liver disease we decide to restart this in low doses and associate it with N-acetylcysteine for better tolerance. Additional ICD was implanted, the patient was stabilized and discharged. Follow-up continues in an advanced heart failure program

Conclusion: In managing cardiac hemochromatosis, therapies to reduce iron overload—such as phlebotomies and chelators—are crucial, even once heart failure has developed, and the use of other additional therapies such as N-acetylcysteine could favor adherence. While these treatments cannot reverse fibrosis, they improve heart function by reducing overload, providing comprehensive care, and optimizing heart failure management.

Control Number: 25-A-870-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-20

Poster Board Number: 20

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: IN-HOSPITAL MORTALITY IN DECOMPENSATED HEART FAILURE: PROGNOSTIC EVALUATION FROM THE EMERGENCY DEPARTMENT. EVIDENCE FROM SOUTHWESTERN COLOMBIA (2020-2024)

Author Block: JOSE LEONEL ZAMBRANO URBANO, Harold Enrique Vasquez Ucros, Danilo Alejandro Solarte Ordóñez, Angie Estefanía Arcos Bastidas, Sarha Lucia Muñoz Muñoz, Santiago Lasso Salazar, Carlos Alberto Hidalgo Patiño, Fundacion Hospital San Pedro, San Juan de Pasto, Colombia

Background: Decompensated heart failure is a common emergency condition with variable in-hospital mortality rates, depending on clinical compromise. There are many prognosis factors described that may contribute to clinical decisions at emergency admissions. This study aims to assess mortality prognosis factors in an emergency settings in southwestern Colombia.

Abstract Body: **Methods:** A retrospective, cross-sectional study was conducted between 2020 and 2024, including 314 patients over 18 years with DHF. The analysis included clinical variables, imaging findings, and NT-proBNP levels at admission as prognostic mortality predictors. Data were processed with SPSS V24 for univariate and bivariate analysis applying the Chi-square test of independence and calculating the OR adjusted to a confidence interval of 95%. A logistic regression model was conducted with Mortality as dependent variable.

Results: The mean age of patients was 74.9 ± 13 years, 48.7% male and 51.3% female, with average hospital stay of 6.61 days. The mortality rate

was 12.1%. The clinical background factors found to be significantly related with higher in-hospital mortality were prior history of stroke (OR 2.93; 95% CI: 1.206-7.136; p = 0.014), atrial fibrillation (OR 2.51; 95% CI: 1.242-5.072; p = 0.009), and chronic kidney disease (OR 2.51; 95% CI: 1.217-5.188; p = 0.011). Pleural effusion found on imaging, was found also related (OR 3.14; 95% CI: 1.571-6.258; p = 0.001). Importantly, neither left ventricular ejection fraction (LVEF) classification (OR of 1.3 95%;CI: 0.659 - 2.563; p= 0.168) nor NT-proBNP levels (OR of 2.09; 95%;CI: 0.616 - 7.12; p= 0.227) were significantly associated with in-hospital mortality in this cohort. The logistic regression model confirmed the positive associations observed in bivariate analysis.

Conclusion: In-hospital Mortality rate, was similar to another national studies Stroke, but higher than international refferences. Atrial fibrillation, chronic kidney disease, and pleural effusion were found as predictors of in-hospital mortality in DHF, while NT-proBNP and LVEF were not prognostic, suggesting the need for alternative biomarkers for better risk stratification.

Control Number: 25-A-871-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-21

Poster Board Number: 21

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CLINICAL PROFILE AND THERAPEUTIC APROACH OF PATIENTS WITH DECOMPENSATED HEART FAILURE IN THE EMERGENCY DEPARTMENT OF TERTIARY CARE HOSPITAL IN PASTO, COLOMBIA (2020-2024)

JOSE LEONEL ZAMBRANO URBANO, CARLOS ALBERTO HIDALGO, Harold

Author Block: Vasquez Ucros, Danilo Solarte, Fernanda Cortes Tapia, Juana Rosero, Mario Bastidas, FUNDACION HOSPITAL SAN PEDRO, PASTO, Colombia

Background: Decompensated heart failure (DHF) is a leading cause of emergency department (ED) admissions. Despite recent advances in pharmacological treatments, the lack of local studies limits the effective integration of international guidelines. This study aimed to characterize the clinical profile and therapeutic approach of patients with DHF admitted to the ED of a tertiary care center in a southwestern Colombian city.

Methods: A retrospective, cross-sectional study was conducted between 2020 and 2024, including 513 patients over 18 years with DHF. The analysis included clinical and pharmacological treatments variables, at admission and discharge, and adherence to Guideline-Directed Medical Therapy (GDMT); data were processed with SPSS V24 for univariate and bivariate analysis.

Results: The mean age of patients was 73.3 ± 13.7 years. Upon admission, 51.7% of the patients had reduced Left Ventricular Ejection Fraction (rLVEF), and 48.3% had preserved LVEF (pLVEF). 47% of patients were in NYHA III, 86.2% in AHA stage C, and 75.2% in Stevenson classification B. At admission, only 7.6% of patients received complete optimal management,

62.8% had incomplete therapy and 29.6% did not receive any management. Among those with rLVEF, only 4.5% reached optimal therapy and 19.9% among those with pLVEF. Only 19.7% of patients were discharged with optimal management, mainly in those with pLVEF; 51.2% were discharged with incomplete therapy, and 28.3% received no pharmacological treatment. Beta-blockers remained the most prescribed therapy (60.4%), and SGLT2 inhibitors increased the prescription at discharge (37.8%). Despite guideline recommendations, ARNI usage showed only a slight increase from 4.3% to 5.7% at discharge, reflecting significant underutilization.

Conclusion: This study highlights critical gaps in guideline adherence for DHF management. This emphasizes the need for targeted interventions to optimize GDMT implementation, taking into account the influence of local epidemiology on clinical outcomes. Future local initiatives should prioritize education, protocol standardization, and early integration of evidence-based therapies to enhance outcomes for DHF patients.

Control Number: 25-A-873-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-22

Poster Board Number: 22

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: CLINICAL PREDICTORS AND PROGNOSTIC UTILITY OF NT-PROBNP IN HOSPITALIZED PATIENTS WITH HFREF: A MULTIVARIABLE ANALYSIS FROM A LATIN AMERICAN COHORT

Author Block: Ramón Romano, Rafael Cortorreal, Tanya Massiel Mateo Garcia, Pamela Pina Santana, Cesar J. Herrera, CEDIMAT Cardiovascular Center, Santo Domingo, Dominican Republic

Background: NT-proBNP is vital in the diagnosis and prognosis of heart failure, with higher levels indicating worse outcomes. This study assesses its predictor and prognostic value in hospitalized HFrEF patients.

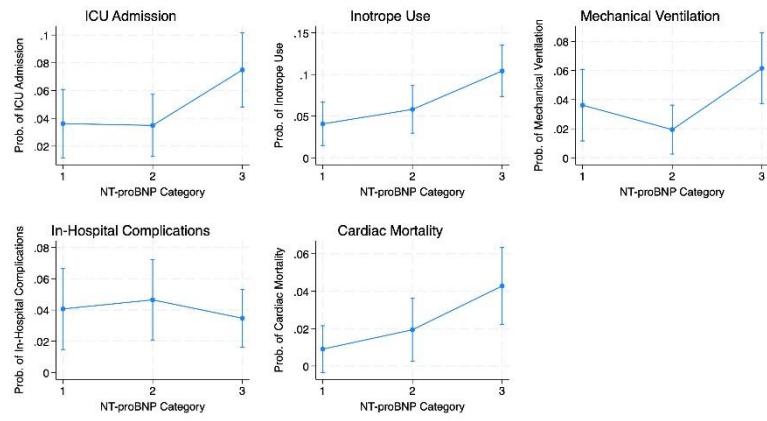
Methods: We analyzed 1,001 hospitalized heart failure patients to assess NT-proBNP and baseline predictors of outcomes using linear and logistic models. NT-proBNP was classified as low (<125 pg/mL), moderate (125-4,500), and high (>4,500). Threshold for significance was set at $p < 0.05$.

Results: Among 1,001 HF patients, 853 had HFrEF (85.2%), mean age 68.0, and 63.8% were male. Multivariate linear regression showed elevated creatinine (coef. 2,395; $p < 0.001$), lower hemoglobin (coef. -680.4; $p < 0.001$), and kidney disease (coef. 3,097.6; $p < 0.002$) were associated with higher NT-proBNP. Age, sex, blood pressure, and diabetes were not significant. High NT-proBNP was associated with ICU admission (OR=1.64, $p=0.032$), inotrope use (OR=2.74, $p=0.008$), and cardiac mortality (OR=4.89, $p=0.035$). Predicted probabilities were 7.5%, 11.5%, and 4.3%, respectively. Mechanical ventilation (OR=1.74; $p=0.185$) and in-hospital complications

(OR=0.84; p=0.710) showed upward trends but lacked significance.

Conclusion: Kidney disease, elevated creatinine, and anemia were associated with higher NT-proBNP, likely reflecting fluid overload. NT-proBNP correlated with ICU admission and inotropic use, indicating worse clinical status.

Predicted Probability of In-Hospital Outcomes by NT-proBNP Category



Control Number: 25-CCC-892-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-23

Poster Board Number: 23

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FULMINANT ACUTE MYOCARDITIS PRESENTING AS ELECTRICAL STORM IN A YOUNG PATIENT

larissa minero garcia, Diego Reyes, Luis Antonio Jiménez, FABIAN

Author Block: GUERRERO, ANTONIO REYES, raul nieto, INSTITUTO NACIONAL DE CARDIOLOGÍA IGNACIO CHÁVEZ, Cdmx, NM, Mexico

Background: Infectious myocarditis is an inflammatory myocardial condition with broad clinical and electrocardiogram (ECG) variability. Its manifestation as complete atrioventricular (AV) block with malignant arrhythmias is rare and poses diagnostic and therapeutic challenges.

Case: A 31-year-old male with no cardiovascular history presented two weeks after a respiratory infection with dyspnea, asthenia, syncope, and chest pain. Third-degree AV block was identified, requiring pacemaker placement. He developed Stokes-Adams syndrome and pulseless

Abstract Body: ventricular tachycardia, requiring resuscitation and emergency transcutaneous pacing. High-sensitivity troponin T (hs-TnT) was elevated (1651 ng/dL). Coronary angiography revealed no lesions. Cardiac magnetic resonance imaging (CMR) showed increased native T1, diffuse T2 edema, subtle septal/lateral enhancement, and reduced left ventricular ejection fraction (LVEF) of 41%. Autoimmune causes were excluded

Decision-making: He required invasive mechanical ventilation and inotropic support with levosimendan. Due to persistent instability, an intra-aortic balloon pump and temporary pacing were initiated. Venoarterial extracorporeal membrane oxygenation was considered if no improvement

occurred. Hemodynamic stabilization was achieved. Final echocardiogram showed LVEF of 52%. ECG and CMR were key to diagnosis and management

Conclusion: Fulminant myocarditis may present with complete AV block and ventricular arrhythmias in previously healthy patients. ECG, CMR, and multidisciplinary management are essential for diagnosis and survival.

Control Number: 25-CCC-894-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-24

Poster Board Number: 24

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HEART TRANSPLANT IN A PATIENT WITH HIV SEROCONVERSION DURING THE WAITLIST PERIOD

Author Block: Alejandro Marino, Edward A. Cáceres, Diego Ortega-Gomez, Giovanny Rios, Diego A. Perez Covo, Hospital Universitario San Ignacio, Bogotá, Colombia, Pontificia Universidad Javeriana, Bogotá, Colombia

Background: Heart transplantation in people living with HIV (PLWH) presents unique clinical and ethical challenges. While previously considered a contraindication, emerging evidence supports transplantation in selected HIV-positive patients.

Case: A 61-year-old man underwent orthotopic heart transplantation with negative HIV serologies at listing, which became positive about two weeks post-surgery. A comprehensive investigation following a biovigilance protocol excluded donor-derived and transfusion-related HIV transmission.

Abstract Body: The postoperative period was complicated by primary graft dysfunction requiring VA-ECMO and surgical reintervention for tamponade. PCR of bronchoalveolar lavage detected *Mycobacterium tuberculosis*. Despite high-dose tacrolimus, therapeutic levels were not achieved due to rifampicin use, causing two episodes of acute cellular rejection. Rifampicin was discontinued following multidisciplinary advice. Antiretroviral therapy with tenofovir/emtricitabine and dolutegravir started two weeks after TB treatment. The patient completed therapy successfully, attained stable immunosuppressive levels, and remained clinically stable for two years post-transplant.

Decision-making:

HIV infection complicates post-transplant care by delaying ART initiation and increasing infection risks. Rifampicin's interaction with tacrolimus can lead to subtherapeutic immunosuppression and rejection. This case highlights the importance of multidisciplinary coordination in managing ART, antimicrobial therapy, and immunosuppression.

Conclusion: Although HIV complicates transplant management, timely diagnosis and tailored treatment can achieve viral control and preserve graft function in heart transplant recipients with HIV.

Control Number: 25-CCC-836-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-25

Poster Board Number: 25

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: NORMALIZATION OF VENTRICULAR FUNCTION IN A PATIENT WITH BIVENTRICULAR DYSFUNCTION AFTER MITRAL-AORTIC VALVE REPLACEMENT WITH MECHANICAL PROSTHESES

Author: Jorge Gómez Reyes, Victor Armando Perez Meza, Laura Leticia Rodriguez

Block: Chavez, National Institute of Cardiology Ignacio Chávez, Mexico City, Mexico

Background: A 30-60% of severe left ventricular ejection fraction (LVEF) cases improve post-valve surgery.

Case: A 56-year-old woman with subclinical hypothyroidism and prediabetes with a 2 year history of progressive dyspnea, orthopnea, paroxysmal nocturnal dyspnea, and bilateral lower limb edema.

Decision-making: Initial evaluation revealed jugular distension, aortic/mitral/tricuspid regurgitation murmurs, hepatomegaly, EKG with sinus tachycardia, left atrial enlargement, and left ventricular hypertrophy (LVH) (Figure 1 A). Echocardiography showed severe biventricular dysfunction (LVEF 24%, RVFAC 25%, TAPSE 12 mm) with moderate tricuspid regurgitation (Figure 1 C). MRI confirmed biventricular dilation and double valvular disease (LVEF 26%) without fibrosis. On 07/12/2022, she underwent aortic (21mm) and mitral (27mm) mechanical valve replacement (St. Jude Masters). An intraoperative inferior cava vein tear was repaired with a bovine pericardial patch. Postoperatively, she required dobutamine, vasopressin, and diuretics but stabilized by day 5. At six months follow-up , her LVEF normalized to 53% with restored RV function, normal chamber dimensions,

Abstract

Body:

and no prosthetic complications (NYHA class II) (Figure 1 D).

Conclusion: This case meets HF with improved EF criteria (LVEF 24% \rightarrow 53%) after mechanical double-valve replacement in a patient with biventricular dysfunction demonstrating significant recovery despite initial poor prognosis (LVEF <25%, biventricular dysfunction).

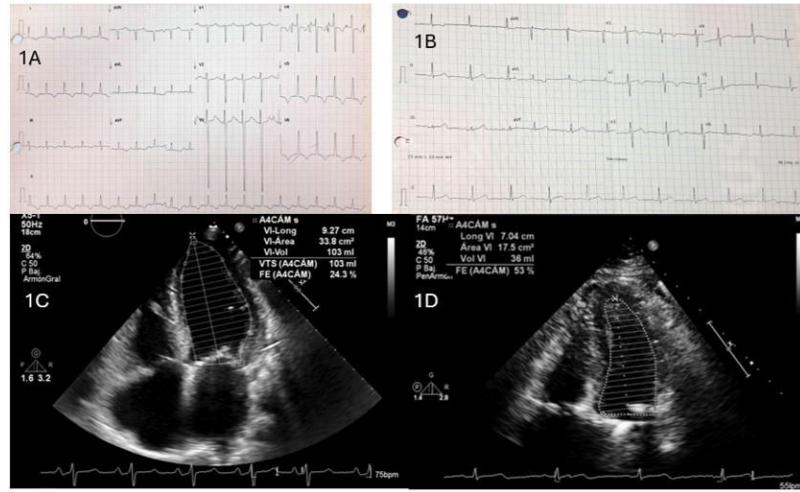


Figure 1.

A) Preoperative ECG from 07/12/22 showing sinus tachycardia and LVH. B) ECG from 2024 without LVH criteria.

C) Transthoracic Echocardiogram (TTE) 06/16/22 showing LVEF of 24.3%.

D) TTE from 01/23/23 with mechanical aortic and mitral valve prostheses and improved LVEF of 53%.

Control Number: 25-A-909-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-26

Poster Board Number: 26

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: COMBINED USE OF SILDENAFIL AND AMBRISENTAN IN PATIENTS WITH SEVERE PULMONARY HYPERTENSION ASSOCIATED WITH CONGENITAL HEART DISEASE

Katia Millaray Rivera, Rodrigo Vicente Gonzalez, Polentzi Uriarte, Daniel

Author Block: Springmuller, Francisca Arancibia, Pamela Zelada, Ronald Acuña, Anita Rubilar, Sofia Lay, Instituto Nacional del Tórax, Santiago, Chile

Background: Pulmonary hypertension (PH) associated with congenital heart disease (CHD-PH) is classified under Group I. For idiopathic, hereditary, drug-induced PH, as well as PH associated with connective tissue diseases, there is general consensus that pharmacological therapy is beneficial, useful, and effective (Class IA recommendation) in reducing risk, based on the predictive model proposed by the European Society of Cardiology. This model defines four risk levels according to the six-minute walk distance (6MWD), World Health Organization (WHO) functional class (FC), and NT-proBNP levels (pg/mL). We present our experience with the combined use of sildenafil and ambrisentan in a group of 16 patients with congenital heart disease.

Methods: Retrospective observational study. We present 16 patients treated with full-dose dual therapy (sildenafil and ambrisentan). The average age was 34 years, and 14 patients were female. Twelve patients had atrial septal defects (ASD): 6 unrepairs, 2 repaired, and 4 with Eisenmenger syndrome. Four patients had ventricular septal defects (VSD): 1 unrepairs, 1 repaired, 1 with a small defect, and 1 with Eisenmenger

Abstract Body:

syndrome. All patients were receiving sildenafil prior to the initiation of ambrisentan. Functional class (FC), six-minute walk distance (6MWD), and pro-BNP levels were recorded. Baseline data (prior to ambrisentan initiation) were compared with the most recent follow-up, conducted every 6 months.

Results: All patients showed a reduction in their risk stratification, with 68.7% reaching low-risk status and 62.5% achieving WHO Functional Class I. The average six-minute walk distance increased from 366 to 457 meters, and mean pro-BNP levels decreased from 705 to 615 pg/mL. Two out of seven patients were able to discontinue oxygen therapy. The six patients who had experienced hemoptysis prior to treatment, no new episodes were recorded. A total of 87.5% of patients were able to maintain active employment. No adverse effects related to therapy were reported.

Conclusion: The combined use of sildenafil and ambrisentan in patients with congenital heart disease associated pulmonary hypertension (CHD-PH) proved to be an effective and safe therapy.

Control Number: 25-CCC-916-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-27

Poster Board Number: 27

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: WHEN SUPPORT TURNS RISK: UNUSUAL IABP MALPOSITION IN A HEMODYNAMICALLY UNSTABLE PATIENT

Author Alejandro Rojas, Hector Gonzalez-Pacheco, Dulce Renee Soto Gonzalez, Alfonso Perez Falcon, Jose Pablo Velasquez Padilla, Adrian Sotelo, Alexandra Arias-Mendoza, GABRIELA ROQUE GONZALEZ, Miguel Tapia Sansores, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico

Block:

Background: Intra-aortic balloon pump (IABP) is a commonly used mechanical support in cardiogenic shock. Although generally safe, rare complications like venous malposition can occur, especially in unstable patients.

Case: A 37-year-old male with history of substance use, subclinical hypothyroidism, dyslipidemia, and HFrEF presented with resting dyspnea, edema, and chest pain. ECG showed sustained VT responsive to amiodarone but followed by hemodynamic collapse. Echo revealed LVEF 10%, severe biventricular dysfunction, and systemic congestion. Norepinephrine, vasopressin, and dobutamine were initiated. Due to worsening instability, IABP was placed via femoral artery, but failed to generate arterial waveform. Imaging revealed venous malposition of IABP into the IVC, confirmed by CT. Vascular surgery removed the device and managed an associated AV fistula. The patient improved, vasopressors were weaned, and MRI showed LVEF 12%, intraventricular thrombus, and known enhancement. ICD was placed for secondary prevention.

Abstract Body:

Decision-making: IABP was indicated due to refractory shock. Lack of waveform prompted imaging that confirmed venous misplacement. Urgent vascular intervention avoided further harm. ECMO was considered but not required due to improvement.

Conclusion: Venous IABP malposition is rare and requires high suspicion. Prompt imaging and multidisciplinary management were critical. Even standard interventions can present unexpected challenges in cardiogenic shock.

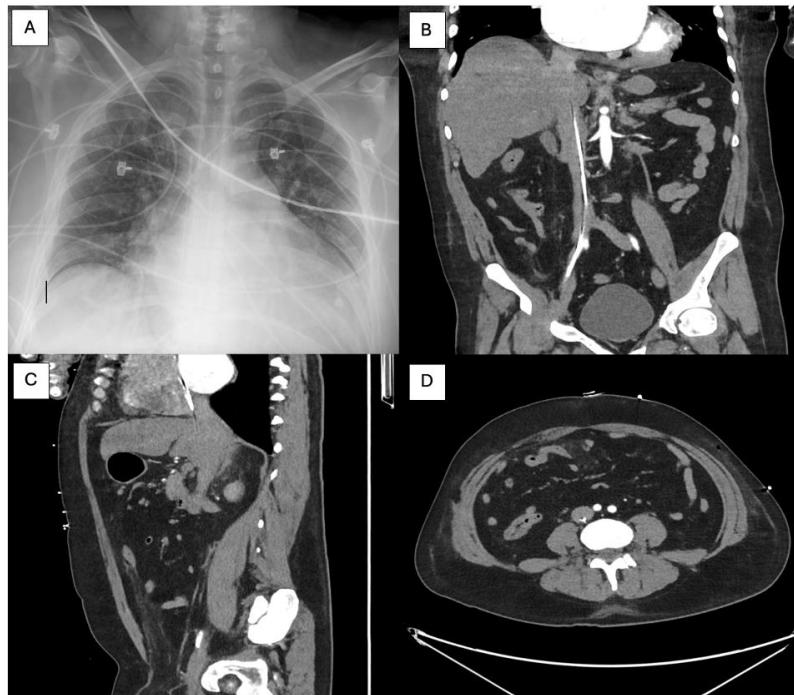


Figure 1. Imaging findings of intra-aortic balloon catheter (IABP) malposition. A: Chest X-ray showing the tip of the intra-aortic balloon catheter (IABP) in the right parasternal region. B: Coronal CT scan showing the course of the IABP within the venous system. C: Sagittal slice demonstrating the IABP located in the inferior vena cava. D: Axial slice showing the IABP within the venous system adjacent to arterial vessels.

Control Number: 25-CCC-918-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-28

Poster Board Number: 28

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: EARLY SIGNS OF HEART FAILURE IN A PATIENT WITH SOTOS SYNDROME: A RARE CARDIAC PRESENTATION AND THE CRITICAL ROLE OF TIMELY SURGICAL INTERVENTION

Author Block: Itza Lisseth Huerta Martínez, Iñaki Leonel Salgado Rodríguez, Andrea Castro Izquierdo, Clemente Barron Magdaleno, Universidad Nacional Autónoma de México, Ciudad de México, Mexico, Instituto Nacional de Ciencias Médicas y Nutricion "Salvador Zubirán", Ciudad de México, Mexico

Background: Sotos syndrome (SS) is a rare (1:14,000 live born children) congenital overgrowth condition caused by a microdeletion in chromosome 5q.

Case: A 25-year-old man with recently diagnosed SS was referred to the Cardiology consult due to the presence of a heart murmur and asymptomatic sinus bradycardia. On physical examination, a bar-shaped holosystolic murmur was documented along the mesocardium, as well as

Abstract Body: sinus bradycardia. A transthoracic echocardiogram (TTE) documented the presence of a perimembranous ventricular septal defect (VSD), with a diameter of 8 mm in the apical four-chamber view, gradient of 91 mmHg, Qp/Qs ratio: 1.45, pulmonary artery systolic pressure of 19 mmHg with normal biventricular function, with left ventricular diameters outside the normal range, peptides within normal limits. A 24-hour Holter monitor showed no evidence of conduction blocks, but bradycardia of up to 35 beats per minute was recorded. The patient underwent a stress test, which documented chronotropic competence. The patient remains under follow-

up and is currently being evaluated for septal defect closure.

Decision-making: Only 25% of SS cases present with cardiac involvement; however, these manifestations are variable and do not follow a specific pattern. Structural defects account for approximately 40% of the presentations, with atrial septal defect and patent ductus arteriosus being the most frequently reported. VSD is not a common manifestation in this syndrome. Currently, the patient receives multidisciplinary care, as he is being evaluated for closure of the septal defect.

Conclusion: This patient with SS and VSD presents a rare finding of this syndrome. The TTE findings suggest early hemodynamic impact despite the preserved function. The planned intervention aims to prevent the development of complications such as heart failure and pulmonary hypertension.

Control Number: 25-CCC-925-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-29

Poster Board Number: 29

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: UHL'S ANOMALY A RARE CAUSE OF ACUTE RIGHT VENTRICLE FAILURE

Author Block: Alan Garcia Jimenez, Luis Rodolfo Espinosa Dufour, Daniel Eduardo Paz Driotes, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

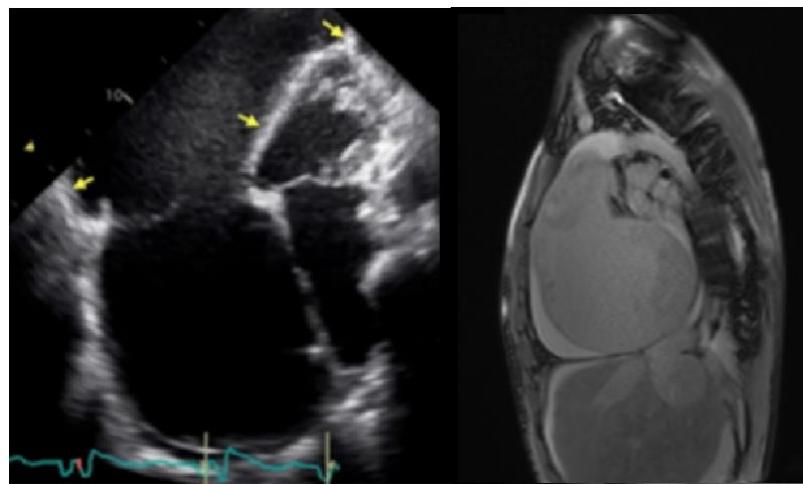
Background: Uhl's disease is a rare disease due to a selective and unimpeded apoptosis of right ventricular myocytes during prenatal period. Resulting in right ventricular failure.

Case: A 21-year-old male presents to the emergency department for evaluation due to a 3-year history of exertional dyspnea. Over the past two weeks, symptoms have progressed. It was found with peripheral oxygen saturation of 65%. TTE demonstrated severely reduced right ventricular function, structurally normal tricuspid valves with severe tricuspid regurgitation. CMRI revealed severe enlargement and extremely thin-walled RV, without evidence of fatty infiltration.

Decision-making: Decongestive therapy were initiated. The patient was evaluated in a multidisciplinary medical-surgical meeting, where he was not considered a surgical candidate due to high operative mortality. Consequently, the patient is currently being followed up, while awaiting transplantation.

Conclusion: The diagnosis is typically made using multimodality cardiovascular imaging, differentiating Uhl's anomaly from other conditions,

particularly arrhythmogenic right ventricular cardiomyopathy and Ebstein's anomaly. Treatment is considered palliative, as there is no standardized management protocol. Surgical palliation via cavopulmonary shunting procedures could be made with variable outcomes. Ultimately, heart transplantation remains the definitive therapeutic option in refractory cases.



Control Number: 25-A-927-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-30

Poster Board Number: 30

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: HYPERTROPHIC CARDIOMYOPATHY IN A COLOMBIAN CENTER: CLINICAL, LABORATORY AND ECHOCARDIOGRAPHIC CHARACTERISTICS.

Author Block: Juan Morales, Orlando Castaño, Sebastián Ayala, Luís Velasquez, Álvaro Herrera, Stephany Barbosa, Felipe Bravo, Jacobo Barona, Angela Timarán, Universidad del Valle, Cali, Colombia, Hospital Universitario del Valle - Evaristo García

Background: Hypertrophic cardiomyopathy (HCM) is a disease characterized by left ventricular hypertrophy in the absence of another underlying etiology. Early diagnosis is essential for proper patient management. This paper describes the clinical, laboratory, and echocardiographic features of a cohort of patients with HCM.

Methods: A cross-sectional study was conducted, using univariate analysis to characterize the sociodemographic and clinical characteristics of the study population. For quantitative variables, the Shapiro-Wilk test was used to identify normal distribution. The variables were presented as means with their respective standard deviations or medians with their respective interquartile ranges. Qualitative variables are presented in absolute and relative frequencies. A bivariate analysis was then performed for each of the clinical and demographic characteristics independently of the HCM phenotype.

Results: 36 patients with a confirmed diagnosis of HCM were included in the registry. 45 % of patients were women; the mean age was 57.4 years; the comorbidities were hypertension (69%), dyslipidemia (50%), and

Abstract Body:

chronic kidney disease (14%). 78 % of cases were in NYHA I; only 14% presented with chest pain, 14% with dyspnea, 6% with palpitations, and 11% with syncope. 83 % of patients were receiving beta-blockers. The main phenotypic variant of HCM was asymmetric septal (69%) and apical (13.8%). 20 % of cases had ICD, only one case presented with sudden cardiac death. In patients with an asymmetric septal phenotype, 4% underwent septal myectomy and 16% underwent alcohol ablation. Mean ProBNP values were 750 pg/ml, mean left ventricular ejection fraction was 61 by echocardiography and 64.5 by CMR. Systolic anterior motion was described in 25%, and left ventricle outflow obstructive in 42% of cases. 40% had a mutation in the MYBPC3 gene and 20% in the TNNI3 gene.

Conclusion: Hypertrophic cardiomyopathy (HCM) is a heterogeneous and complex disease. The characteristics of this population will contribute to improving diagnostic suspicion and early decision-making for timely interventions in these patients.

Control Number: 25-CCC-944-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-31

Poster Board Number: 31

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: WHEN THE HEART CRACKED TWICE: FROM VENTRICULAR CLEFT TO TAKOTSUBO SHOCK

Author Block: Gabriela Rojas, Andrea Ibarra, Jose Jesus Aguilar, MILITZA DE LOS SANTOS FUENTES, hugo velazquez, Anton Meneses Bonilla, Hospital Angeles Lomas, Mexico City, Mexico

Background: Ventricular clefts are rare congenital myocardial anomalies, often incidental, their clinical significance remains under investigation.

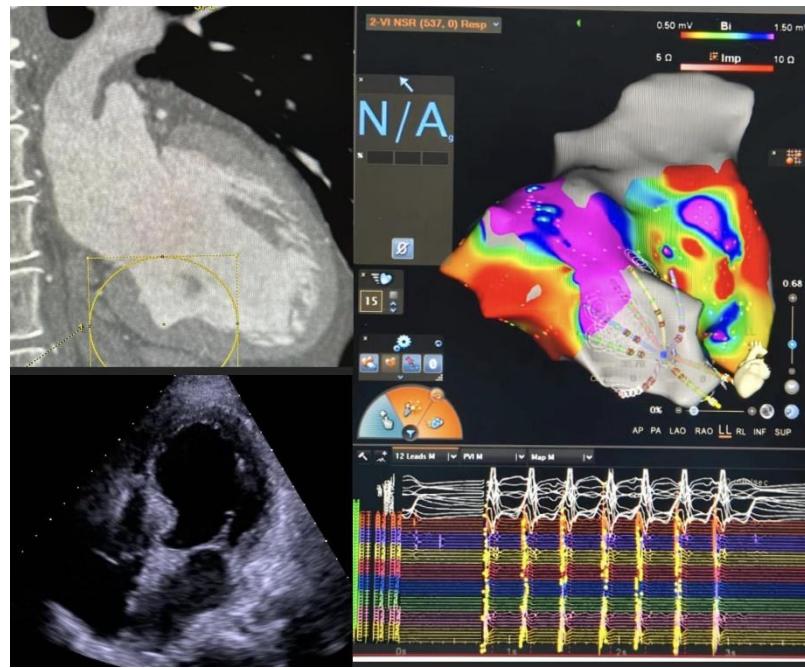
Case: We present the case of a 69-year-old woman with a history of hypothyroidism who reported palpitations and exertional dyspnea. A Holter monitor revealed non-sustained ventricular tachycardia (NSVT). Coronary CT angiography showed a mid-inferior ventricular cleft without coronary artery disease. During an electrophysiological study, she developed ventricular tachycardia originating from the cleft region, with scarring extending to the basal and septal segments. Following catheter ablation, she developed cardiogenic shock, with echocardiographic findings consistent with Takotsubo Syndrome (hypokinesis of the inferior, septal, and lateral walls).

Decision-making: The patient was classified as having a SCAI stage D cardiogenic shock, requiring inotropic and double vasopressor support. The patient gradually recovered and was discharged on optimal guideline-directed medical therapy for heart failure.

Conclusion: In this case, the cleft served as the substrate for ventricular tachycardia, challenging the notion of their clinical insignificance. The

Abstract Body:

subsequent Takotsubo Syndrome highlights the interplay between myocardial stress and acute ventricular dysfunction.



Control Number: 25-CCC-952-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-32

Poster Board Number: 32

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: PHENOTYPIC VARIABILITY OF CARDIAC INVOLVEMENT IN DUCHENNE MUSCULAR DYSTROPHY: REPORT OF TWO AFFECTED BROTHERS

Author Block: William Alberto palma romero, oscar cortez, Mariana Berganza, Juan Manuel Quintanilla, Carlos Franco, Mariana Berganza, Jessica Mercedes, Hospital Rosales, San Salvador, El Salvador

Background: Duchenne muscular dystrophy (DMD) is the most common hereditary myopathy in males; it causes cardiomyopathy in 90 % of cases and is the leading cause of death, with phenotypic expression varying even among relatives.

Case: 2 brothers with DMD who developed phenotypically distinct cardiomyopathy but with similar fibrosis.

• **Case 1:** 18-year-old male, cardiovascularly asymptomatic.

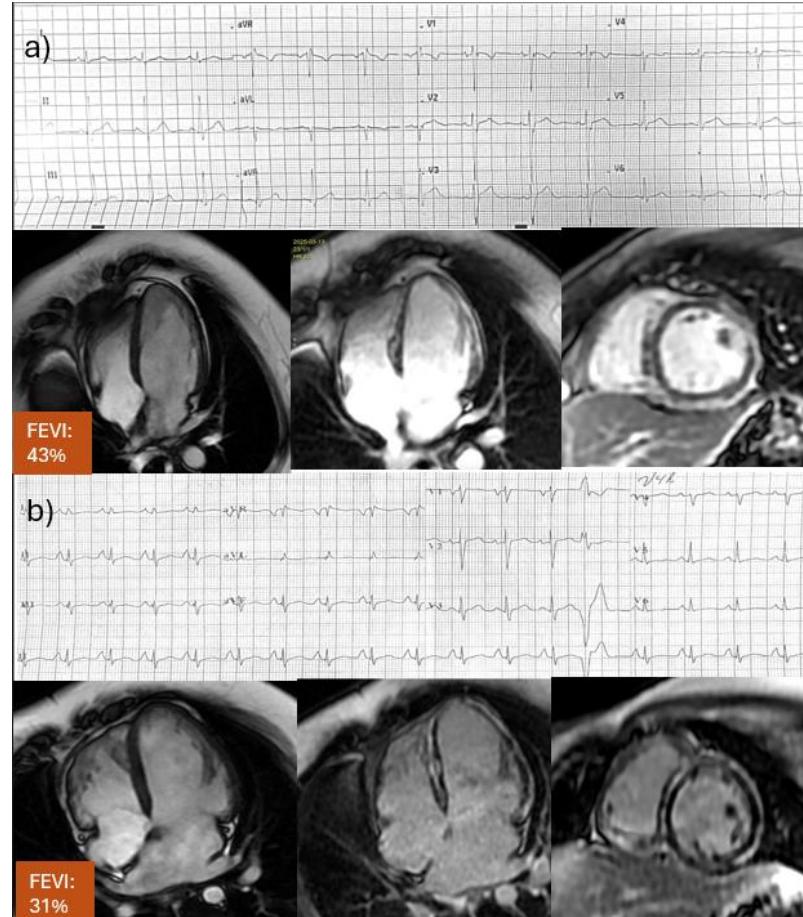
Abstract Body: Electrocardiogram (ECG): QRS notch. Cardiac magnetic resonance (CMR): non-dilated hypokinetic cardiomyopathy, mild biventricular systolic dysfunction, LVEF 43 %, RVEF 45 %, LV GLS -15 %, and late gadolinium enhancement (LGE) involving 31 % of LV mass with global epicardial distribution.

• **Case 2:** 15-year-old male, in heart failure. ECG: low voltage, bi-atrial dilatation, ventricular extrasystoles. CMR: dilated cardiomyopathy with biventricular failure, global hypokinesia, LVEF 31 %, RVEF 33 %, GLS -10 %, and LGE involving 29 % of LV mass with global epicardial distribution.

Decision-making: Both cases demonstrate cardiac phenotypic variability in

DMD, with distinct evolutionary trajectories even between full siblings. Early identification of the non-dilated phenotype by CMR could allow therapies that delay progression to dilated forms.

Conclusion: Early cardiac evaluation detects phenotypes related to DMD-associated cardiomyopathy. CMR is the gold standard for assessing the presence and location of fibrosis in DMD patients and can be performed even in those with a normal cardiac phenotype.



Case a) Non Diltated hypokinetic cardiomyopathy: FEVI: 43%, FEVD:48.36% SLG:-15%, LGE: 27.9g /31.3%.

Case b) Dilated cardiomyopathy FEVI:31%, FEVD: 33% SLG: -10.4%, LGE: 34.5 g/29%

Control Number: 25-CCC-954-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-33

Poster Board Number: 33

Topic 1: Heart Failure and Cardiomyopathies

Publishing Title: FROM LIVER TO HEART: HEPATOCELLULAR CARCINOMA WITH INTRACAVITARY CARDIAC INVOLVEMENT: A CASE REPORT TO KEEP IN MIND

Edna Indira RODRIGUEZ GARCIA, FLOR P. ROSAS, Herlich F. Perez-Roa,

Author Block: Rubisela Nájera-Ramírez, Jennifer I. Hernandez-Morgado, Lozano R. Giancarlo, IMSS, Veracruz, Mexico

Background: A 63-year-old woman, a past medical of type 2 diabetes and hypertension. At the age of 62 years, she began with diarrhoea, bloating and abdominal pain, with weight loss of 10 kg in 8 months. Colonoscopy showed endoscopic and histopathological data of UC.

Case: During the consultation, the patient reported progressive dyspnea and precordial pain with no other accompanying symptoms. An echocardiogram was performed, which revealed a mass in the right atrium with a pedicle in the interatrial septum that protruded close to the tricuspid valve measuring transient approximately 30 mm x 28 mm. During her hospitalisation she presented malaise and intermittent diffuse abdominal pain. CT was performed, documenting a severely enlarged liver, with heterogeneous parenchyma at the expense of a large liver tumour measuring 126x116x140 mm involving segments VII and VII of Couinaud, multilobulated, well defined, heterogeneous, with invasion of the IVC in its intrahepatic segment and ascending to invade the heart with an intra-atrial tumour measuring 44 x 51 x 37 mm. The concentration was alpha-fetoprotein 645 ng/ml.

Abstract Body:

Decision-making: The patient was assessed by gastroenterology and oncology to provide a prognosis for the primary tumour, who reported that the tumour had a 1-year survival rate of 81%, 2-year survival rate of 57%, BCLC 3-year survival rate: 20-40%. Given this scenario, the clinical case was presented to the Heart Team, who decided to perform surgical resection due to the size of the tumour and the risk of embolism.

Conclusion: Surgery was performed with the following findings: atrial tumour of approximately 40 x 30 mm with pedicle in the interatrial septum. The histopathology report was a poorly differentiated carcinoma with ambiguous phenotype compatible with hepatocellular carcinoma, immunohistochemistry with the following markers: Glypican-3 positive 3+ in 20%, cytokeratin AE1/AE3 positive 3+ in 10%, HepPar 1 positive 3+ in 5% (run 2 times), confirming the diagnosis of hepatocarcinoma with intracardiac invasion. Cardiac metastases occur in up to 10% of cancer patients, intracavitory metastases of the heart from hepatocarcinoma are rare, and are reported in less than 6% of autopsies.

Control Number: 25-A-773-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-34

Poster Board Number: 34

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PREDICTING ACUTE KIDNEY INJURY AFTER PERCUTANEOUS CORONARY INTERVENTION USING MACHINE LEARNING: TOWARDS A SMARTER CARDIOLOGY

Author Block: Edil Argueta, Ana Karen Garro Almendaro, Iván Alejandro Elizalde Uribe, Antonio Alanmar Leon Martinez, National Medical Center 'November 20th', ISSSTE, Mexico City, Mexico

Background: Acute kidney injury (AKI) is a preventable complication of percutaneous coronary intervention (PCI). This study aimed to develop machine learning models (MLM) to predict AKI after PCI using clinical data.

Methods: This study included 280 PCI patients (2023-2024). Two MLM were developed using 9 clinical variables: a pre-procedural model (with baseline creatinine) and a post-procedural (with 48h-creatinine and contrast volume), both based on Light Gradient Boosting Machine. Variable selection was performed using the Least Absolute Shrinkage and Selection Operator method. Model interpretability was achieved through SHapley Additive Explanations (SHAP) beeswarm plots. Performance was evaluated by area under the curve, accuracy, sensitivity, and positive predictive value (PPV).

Results: AKI occurred in 52 (18.57%). The dataset was divided into 224 training and 56 testing cases. Mean age was 66.1 ± 11.3 years, with male predominance. SHAP analysis identified baseline creatinine, albumin, hemoglobin, and reduced left ventricular ejection fraction as key predictors in pre-procedural model; in post-procedural, creatinine at 48h and contrast

Abstract Body: performed using the Least Absolute Shrinkage and Selection Operator method. Model interpretability was achieved through SHapley Additive Explanations (SHAP) beeswarm plots. Performance was evaluated by area under the curve, accuracy, sensitivity, and positive predictive value (PPV).

volume had the highest impact. This model showed the best predictive performance (AUC: 0.91, sensitivity: 61.5%, PPV: 83.3%).

Conclusion: Our study demonstrated that MLM can predict AKI after PCI. These models support individualized risk assessment using pre-procedural factors and offer interpretable predictors to help mitigate AKI risk.

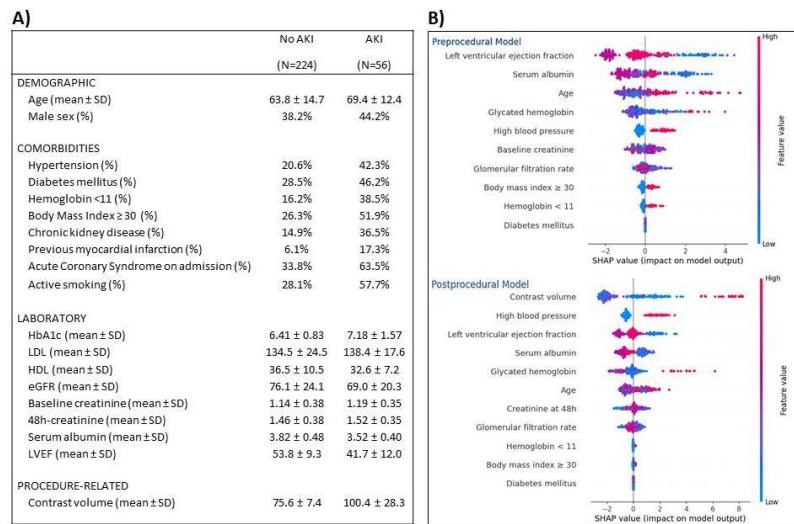


Fig. 1. Feature importance analysis of the machine learning models. **A)** Table of Baseline characteristics of patients with and without AKI. **B)** SHAP beeswarm plots showing the most influential variables in the light gradient boosting machine models: a pre-procedural using 9 clinical variables including baseline creatinine, and post-procedural incorporating 48-hour creatinine and contrast volume.

AKI: Acute kidney injury, LVEF: Left ventricular ejection fraction, SD: Standard deviation

Control Number: 25-CCC-839-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-35

Poster Board Number: 35

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: SILENT GERBODE DEFECT FOLLOWING TAVR: A RARE BUT IMPORTANT COMPLICATION

Author Block: Luis Acevedo Aquino, Carolina Rodriguez Rivera, Alejandro Jose Lopez-Mas, Damas Hospital, Ponce, PR, USA

Background: Transcatheter Aortic Valve Replacement (TAVR) has seen significant growth in the treatment of severe Aortic Stenosis (AS). Gerbode defect, a left ventricle to right atrium connection, is a rare iatrogenic complication post TAVR with an estimated incidence of 1-2%.

Case: A 75-year-old Puerto Rican female with a past medical history of arterial hypertension and chronic kidney disease, underwent TAVR with a self-expandable aortic valve. Postoperatively, patient developed complete atrioventricular block, requiring dual-chamber pacemaker placement.

Abstract Body: Repeat transthoracic echocardiogram (TTE) revealed a small, type 1 Gerbode defect.

Decision-making: Follow-up TTE at 30 days and 2 months post procedure showed no progression in the defect. The Patient remained asymptomatic with improved functional status and would continue under surveillance.

Conclusion: For now, Gerbode defect remains a rare occurrence. As TAVR continues to expand, this case highlights the importance of appropriate surveillance and contributes to the growing body of literature on post TAVR

complications.

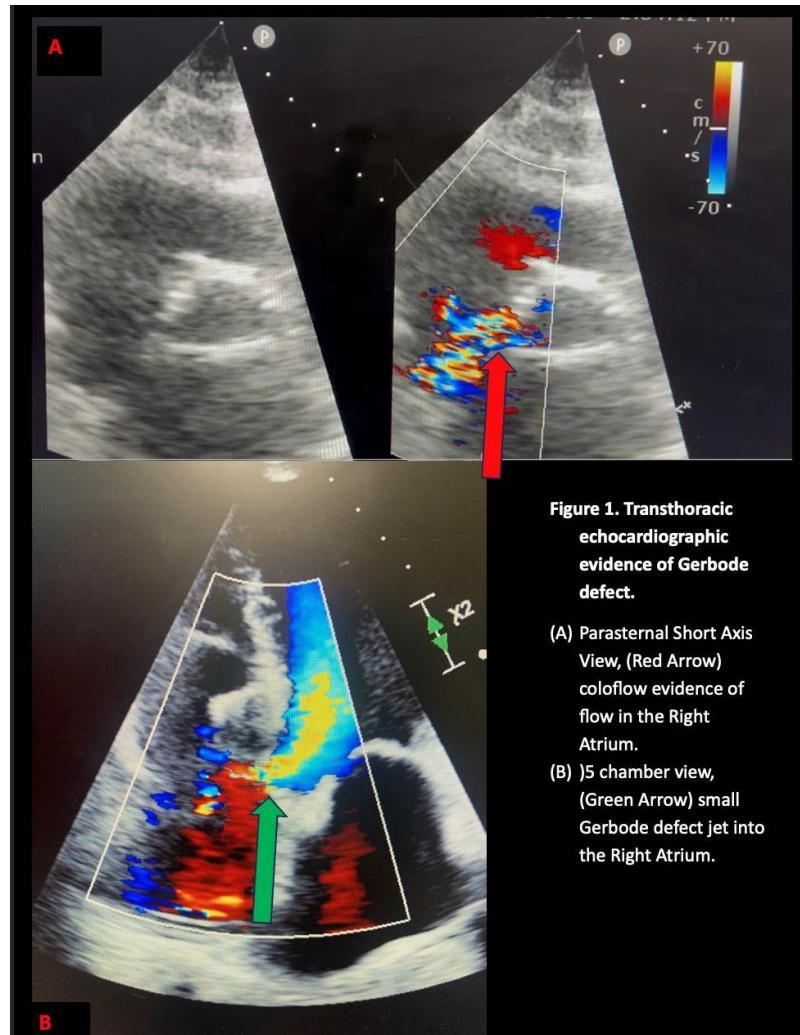


Figure 1. Transthoracic echocardiographic evidence of Gerbode defect.

(A) Parasternal Short Axis View, (Red Arrow) coloflow evidence of flow in the Right Atrium.

(B) 4 chamber view, (Green Arrow) small Gerbode defect jet into the Right Atrium.

Control Number: 25-A-852-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-36

Poster Board Number: 36

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: HYBRID VS DOUBLE-SUTURE STRATEGIES FOR VASCULAR CLOSURE IN TF-TAVI: A SYSTEMATIC REVIEW AND META-ANALYSIS

Author Block: Josué M. Martínez, Muhammad Yusufzai, Abdinasir Aray, Faizan Bashir, Zahin Shahriar, Dhananjayan Srikrishna, Husni Zainal, José Manuel Comprido, Tobias Rheude, Hospital de Especialidades CMN La Raza, IMSS, Ciudad de Mexico, Mexico, Universidad Nacional Autonoma de México, Ciudad de Mexico, Mexico

Background: Access-related vascular complications are associated with vascular closure device (VCD) failure and mortality after TAVI.

Methods: A systematic search of three electronic databases identified two eligible randomized controlled trials and four observational studies.

Heterogeneity between studies was assessed using the I^2 statistic, and a random-effects model was used to pool risk ratios (RRs) with 95% confidence intervals (CIs).

Abstract Body: **Results:** Six studies comprising 4,064 patients were included. The hybrid strategy was associated with significantly fewer major vascular complications (RR = 0.48; 95% CI [0.26-0.87]; $p = 0.016$), minor vascular complications (RR = 0.61; 95% CI [0.50-0.74]; $p < 0.001$), and major bleeding events (RR = 0.44; 95% CI [0.24-0.78]; $p = 0.005$). There were no significant differences in stroke (RR = 0.92; 95% CI [0.29-2.94]; $p = 0.89$) or all-cause mortality (RR = 0.54; 95% CI [0.28-1.05]; $p = 0.07$).

Conclusion: In patients undergoing large-bore vascular access closure after

TF-TAVI, a hybrid VCD strategy—combining a plug-based device (Angio-Seal or FemoSeal) with a suture-based system (ProGlide)—was associated with fewer vascular and bleeding complications compared to a double-suture-only approach. The hybrid method appears to be a safer and more effective option for vascular closure in this setting.

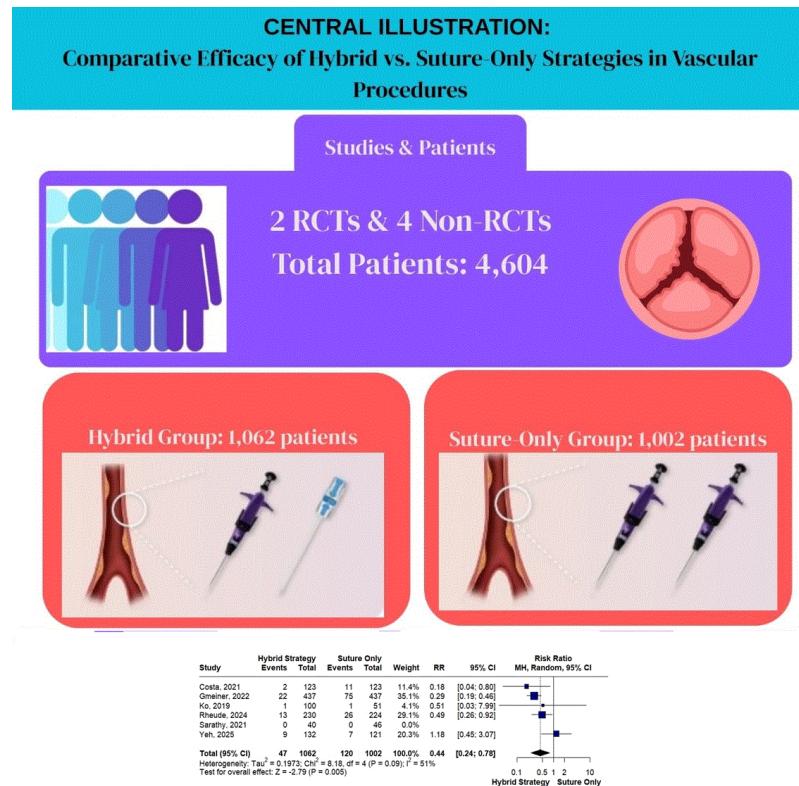


Figure 1: Major vascular complications. The incidence of major vascular complications was significantly reduced in patients treated with the hybrid strategy.

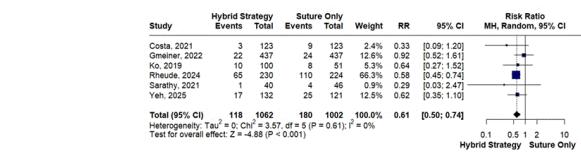


Figure 2: Minor vascular complications. The incidence of minor vascular complications was significantly reduced in patients treated with the hybrid strategy.

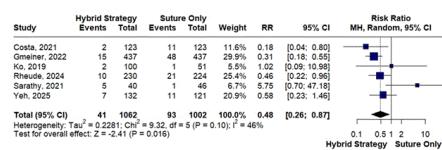


Figure 3: Major bleeding. The incidence of major bleeding was significantly reduced in patients treated with the hybrid strategy.

Control Number: 25-A-865-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-37

Poster Board Number: 37

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: SAFETY AND EFFICACY OF AN EARLY DISCHARGE PROTOCOL FOLLOWING INTERVENTIONAL CARDIOVASCULAR AND NEUROVASCULAR PROCEDURES: A RETROSPECTIVE COHORT WITH 30-DAY FOLLOW-UP

Author Block: Diana Bonilla, Danilo Caceres, Jairo Cadena, Antonio Dager, José Fernando Valencia, Angiografia de Occidente, Santiago de cali, Colombia

Background: Early discharge programs aim to increase bed availability while preserving patient safety. Robust post-discharge surveillance is essential to validate their real-world performance.

Methods: We reviewed 5,485 consecutive patients who underwent minimally invasive cardiovascular or neurointerventional procedures (2021-2023). Discharge destination and telephone follow-up at 24 h and 30 d were extracted from a prospectively maintained registry. Primary endpoints were 30-day rehospitalization, death, or procedure-related symptoms.

Abstract Body: **Results:** Most patients (69.9%, n = 3,833) were discharged directly home. Telephone contact was achieved in 69 % at 24 h and 66.5 % at 30 d (n = 3,650). Among those reached at 30 d, 99.7 % reported no complications; symptomatic events without hospitalization occurred in 0.16 % (n = 6), rehospitalization in 0.05 % (n = 2) and mortality in 0.08 % (n = 3). No deaths were attributed to the index procedure. Rehospitalizations were unrelated cardiovascular admissions.

Conclusion: An early-discharge pathway after interventional procedures proved safe, with <0.2 % clinically significant events at 30 days. These

findings support broader adoption of structured early-discharge protocols to optimize resource utilization in high-complexity centers.

Control Number: 25-A-872-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-38

Poster Board Number: 38

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: COST SAVINGS FROM AN EARLY-DISCHARGE PROGRAM AFTER CARDIO- AND NEUROINTERVENTIONAL PROCEDURES: A THREE-YEAR REAL-WORLD COHORT

Diana Bonilla, Danilo Caceres, Jairo Cadena, José Fernando Valencia

Author Block: Murillo, Angiografia de Occidente, Santiago de cali, Colombia, Universidad San Buenaventura, Colombia

Background: Early discharge (ED) protocols aim to reduce hospital occupancy and costs, yet contemporary economic evidence in Latin America is scarce.

Abstract Body: We analysed all consecutive cardiovascular and neurointerventional procedures performed between 2021 - 2023 in a high-complexity centre. Discharge destination and length-of-stay were recorded prospectively. Unit costs for one day in ward, intermediate care (UCIN) and ICU, plus ambulance and follow-up calls, were extracted from the institutional cost sheet. A per-procedure “saving per case” (COP) provided by the finance department was applied to each ED patient; figures were converted to USD with the 2021-2023 mean exchange rate (COP 3,981 = USD 1). Outcomes: total and mean cost savings and proportion of cases benefiting from ED.

Results: Among 5,485 interventions, 3,845 (70.1 %) met ED criteria and were discharged home < 24 h after recovery. Aggregate saving reached COP 14.7 billion (≈ USD 3.7 million) over three years, with a mean saving of COP 0.94 million (≈ USD 237) per patient. The largest absolute savings arose

from high-complexity procedures—transcatheter aortic valve implantation, complex coronary angioplasty, and left-atrial device closure—each exceeding USD 0.4 million in cumulative benefit. No excess 30-day rehospitalisation or mortality had been observed in the clinical audit reported separately.

Conclusion: Un itinerario estructurado de AT tras procedimientos mínimamente invasivos generó un beneficio económico sustancial—casi 4 millones USD y miles de días-cama liberados—sin comprometer la seguridad a corto plazo. Estos resultados respaldan la expansión regional de la AT como intervención de alto valor para centros terciarios en Latinoamérica.

Control Number: 25-CCC-879-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-39

Poster Board Number: 39

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: POST-MYOCARDIAL INFARCTION VENTRICULAR SEPTAL RUPTURE ENCAPSULATED WITHIN A CONTAINED ANEURYSM: A COMPLEX CASE REPORT

Author Block: Alfonso Perez Falcon, Adrian Sotelo, Javier Solis Estrada, Jose Pablo Velasquez Padilla, Alejandro Iván Rojas, Alexandra Arias-Mendoza, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, México

Background: Despite advances in reperfusion therapy reducing mechanical complications after ST-elevation myocardial infarction (STEMI), these events remain fatal. The simultaneous occurrence of two mechanical complications is rare and presents major therapeutic challenges.

Case: A 77-year-old woman with hypertension and smoking history presented with 10 days of oppressive chest pain, partially relieved by NSAIDs. On admission, she had worsening pain and dyspnea. Vitals: BP 89/60 mmHg, HR 110 bpm, SatO₂ 88%. Exam showed orthopnea, S3 gallop, systolic murmur, and delayed capillary refill. ECG: ST elevation in II, III, aVF, and Q waves. Labs: troponin 1380 ng/L, CK-MB 61 U/L, NT-proBNP 13,700 pg/mL, lactate 4.4 mmol/L, Cr 1.8 mg/dL. POCUS suggested inferobasal ventricular septal rupture (VSR), pericardial effusion, and wall motion abnormalities. Echo confirmed VSR with left-to-right shunt, basal inferior pseudoaneurysm, LVEF 59%, and 9 mm effusion without tamponade. CTA showed pseudoaneurysm rupture into the RV and distal RCA occlusion.

Decision-making: Diuretics, vasopressors, and inotropes were started. IABP

Abstract Body: 89/60 mmHg, HR 110 bpm, SatO₂ 88%. Exam showed orthopnea, S3 gallop, systolic murmur, and delayed capillary refill. ECG: ST elevation in II, III, aVF, and Q waves. Labs: troponin 1380 ng/L, CK-MB 61 U/L, NT-proBNP 13,700 pg/mL, lactate 4.4 mmol/L, Cr 1.8 mg/dL. POCUS suggested inferobasal ventricular septal rupture (VSR), pericardial effusion, and wall motion abnormalities. Echo confirmed VSR with left-to-right shunt, basal inferior pseudoaneurysm, LVEF 59%, and 9 mm effusion without tamponade. CTA showed pseudoaneurysm rupture into the RV and distal RCA occlusion.

was avoided due to rupture risk. The Heart Team opted to delay surgery for 48 hours to improve stability and outcomes.

Conclusion: his case highlights the need for early recognition, imaging, and multidisciplinary coordination in rare STEMI complications. Learning points: Multimodal imaging is essential for prompt diagnosis. Heart Team input guides timing in high-risk cases.



Control Number: 25-CCC-881-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-40

Poster Board Number: 40

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PULMONARY ARTERY PSEUDOANEURYSMS DUE TO INFECTIVE ENDOCARDITIS IN A PATIENT WITH UNREPAIRED PATENT DUCTUS ARTERIOSUS

Monserrath Basilio Téllez, Romina Daniela Pérez Domínguez, Jesús Alberto Blanco Hernández, Ana Alarcón Martínez, Christian Guillermo Tapia Cervantes, Jonathan Reyes-Rivera, Karla Alejandra Pupiales Dávila, Carla Domínguez, Andrea Magdalena Luna Hernández, Stephanie Angulo, Jorge Sanchez, Edgar Garcia Cruz, Miguel Angel Cruz Marmolejo, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico

Background: Unrepaired congenital heart disease (CHD) increases the risk of developing infective endocarditis (IE). Pulmonary artery pseudoaneurysms (PAPAs) are an uncommon but severe complication.

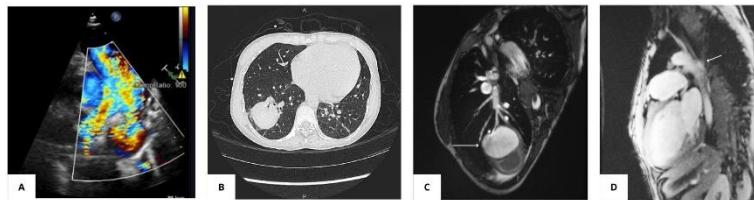
Case: An 18-year-old female presented to the emergency department with dyspnea, fever, massive hemoptysis, and chest pain. On examination, BP 107/20 mmHg, HR 68 bpm, RR 20 rpm, and SpO₂ 97%. Bibasilar crackles and a continuous Gibson murmur were noted. Imaging revealed a patent ductus arteriosus (PDA) with a left-to-right shunt, vegetations on the aortic and mitral valves, and severe mitral regurgitation. Cardiac MRI showed PAPAs in segmental branches and a mycotic aneurysm in the descending thoracic aorta. Blood cultures were positive for *Granulicatella adiacens*.

Decision-making: In addition to supportive care and targeted antimicrobial therapy, transcatheter embolization with a vascular plug was performed first,

Abstract Body:

followed by aortic and mitral valve replacement surgery, resection of the aortic mycotic aneurysm with graft interposition, and PDA closure. The patient was discharged with clinical improvement.

Conclusion: We present a complex case of IE requiring staged hybrid treatment. Selecting the best therapeutic approach and timing for each intervention was a challenge. As stated in current guidelines, embolization of PAPAs was performed to reduce perioperative complications. A multidisciplinary therapeutic approach is essential to achieve favorable outcomes in complex cases of IE in CHD.



A. Ecocardiograma Transtorácico Doppler. Tronco de la Arteria Pulmonar dilatado, cortocircuito izquierda derecha a nivel de arteria pulmonar izquierda; **B.** Angiotomografía Pulmonar. Pseudoaneurisma de la rama laterobasal derecha, diámetro máximo 47x36 mm; **C.** Angioresonancia Pulmonar, Aneurisma dependiente de una rama subsegmentaria basal del lóbulo inferior derecho 40x 50 mm; **D.** Angioresonancia Pulmonar. Irregularidades luminales en pared postero-medial en aorta descendente de 22x12 mm de diámetro en relación con pseudoaneurisma.

Control Number: 25-A-895-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-41

Poster Board Number: 41

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: INTERRUPTING ORAL ANTICOAGULATION IN TAVR: INCREASED TRANSFUSIONS WITHOUT REDUCED BLEEDING? A META-ANALYSIS OF 2,957 PATIENTS

Adolfo Calderón-Fernández, Seni Ocampo-Calderón, Arath Josué Campos Muñoz, Alejandro Vega Acosta, Sayeli Elisa Martínez Topete, Beatriz Eugenia Lamadrid García, Mara Ussel Morgan, Juan Jose Parcero, Autonomous University of Baja California, Tijuana, Mexico, National Institute of Medical Sciences and Nutrition Salvador Zubirán, Ciudad de México, México, Mexico City, Mexico

Background: The safety of interrupting oral anticoagulation (OAC) prior to transcatheter aortic valve replacement (TAVR) remains controversial. While often considered safer, its impact on bleeding and transfusion has not been fully characterized. This meta-analysis evaluates these outcomes in patients undergoing TAVR.

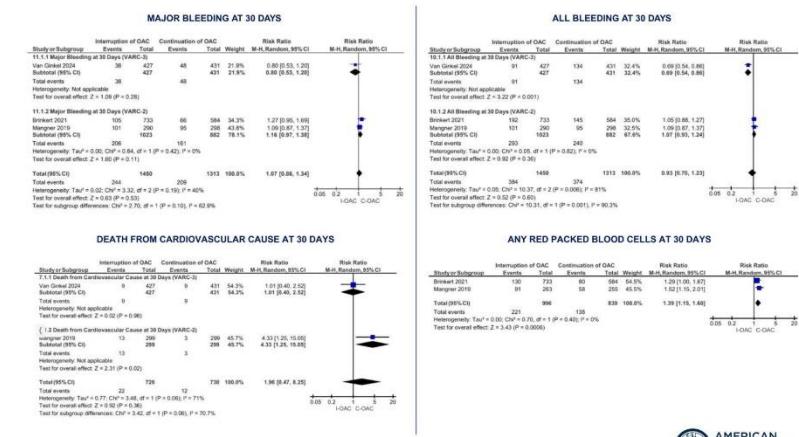
Abstract Body: **Methods:** We conducted a secondary analysis of a previously published meta-analysis, including 2,957 patients from four comparative studies. Outcomes assessed were major bleeding, all bleeding, red blood cell transfusion, cardiovascular death, myocardial infarction, and hospital length of stay. Pooled risk ratios (RR) and mean differences (MD) were calculated using a random-effects model.

Results: Transfusion rates were significantly higher in the OAC interruption group (RR 1.39; 95% CI 1.15-1.68; $p = 0.0006$). Major bleeding was similar

between groups (RR 1.07; 95% CI 0.86-1.34; $p = 0.53$). No significant reduction was found in the overall rate of all bleeding (RR 0.93; 95% CI 0.70-1.23; $p = 0.60$). There were no significant differences between the groups regarding cardiovascular deaths, myocardial infarctions, or the duration of hospital stays.

Conclusion: OAC interruption before TAVR does not reduce bleeding but is associated with higher transfusion requirements. These findings suggest the need for individualized anticoagulation strategies that balance ischemic and bleeding risks.

INTERRUPTING ORAL ANTICOAGULATION IN TAVR: INCREASED TRANSFUSIONS WITHOUT REDUCED BLEEDING? A META-ANALYSIS OF 2,957 PATIENTS



AMERICAN COLLEGE OF CARDIOLOGY

Control Number: 25-CCC-897-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-42

Poster Board Number: 42

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: PULMONARY ARTERIOVENOUS MALFORMATION: FROM DIGITAL CLUBBING TO MASSIVE HEMOTHORAX

Author Block: Jonathan Reyes-Rivera, Jesús Alberto Blanco Hernández, Romina Daniela Pérez Domínguez, Stephanie Angulo, Jorge Sanchez, Monserrath Basilio Téllez, Ana Alarcón Martínez, Karla Alejandra Pupiales Dávila, Carla Domínguez, Andrea Magdalena Luna Hernández, Christian Guillermo Tapia Cervantes, Isaac Espinosa Caleti, Ricardo Sánchez Moreno, Edgar García Cruz, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

Background: Pulmonary arteriovenous malformation (PAVM) is a rare condition (0.04% prevalence) involving abnormal pulmonary artery-vein connections. It causes hypoxemia, dyspnea, and digital clubbing, with untreated cases risking hemothorax or stroke (mortality up to 50%). Risk factors include hereditary hemorrhagic telangiectasia and possibly cocaine use, which may weaken vessels. Early diagnosis via imaging is vital, but complications often require urgent intervention.

Abstract Body: **Case:** A 38-year-old male with cocaine use history presented with dyspnea, hypoxemia, and digital clubbing. Workup revealed a PAVM, with elective embolization planned. He later developed acute chest pain and dyspnea, presenting with hypotension (BP 83/48), tachycardia (HR 123 bpm), and absent right lung sounds. Emergency catheterization confirmed a bleeding PAVM in the right lower lobe. Urgent embolization using an Amplatzer Plug and chest tube drainage (2.4L blood) stabilized him. Hemoglobin dropped from 21 to 16.2 g/dL. Post-procedure atelectasis required respiratory

therapy, but follow-up showed improved respiratory function and no symptoms.

Decision-making: Elective embolization was initially planned due to stable symptoms. Acute deterioration with hypotension and absent breath sounds suggested hemothorax, confirmed by catheterization. Urgent embolization was chosen to stop bleeding, with chest tube placement and norepinephrine for shock. Multidisciplinary coordination ensured rapid intervention. Post-procedure respiratory therapy addressed atelectasis, supporting recovery.

Conclusion: This case highlights PAVM as a rare cause of hypoxemia and clubbing, with potential for severe complications like hemothorax. Prompt recognition and urgent embolization were critical to survival. Clinicians should suspect PAVM in similar presentations, especially with cocaine use. Timely intervention is key to managing such rare vascular anomalies.

Control Number: 25-A-912-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-43

Poster Board Number: 43

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: MUSIC THERAPY IN THE CARDIAC INTENSIVE CARE UNIT A NON PHARMACOLOGICAL INTERVENTION TO REDUCE PHYSIOLOGICAL STRESS: A RANDOMIZED CONTROLLED TRIAL

Author Ilani Paola Santoyo Pérez, Javier Andres Ascencio Guerrero, Hector Iñaki Marrufo Rizo, Martha G. Hernández Quesada, Manuel J. Rivera Chávez,
Block: Medicine and Nutrition Department, University of Guanajuato, León, Guanajuato, Mexico

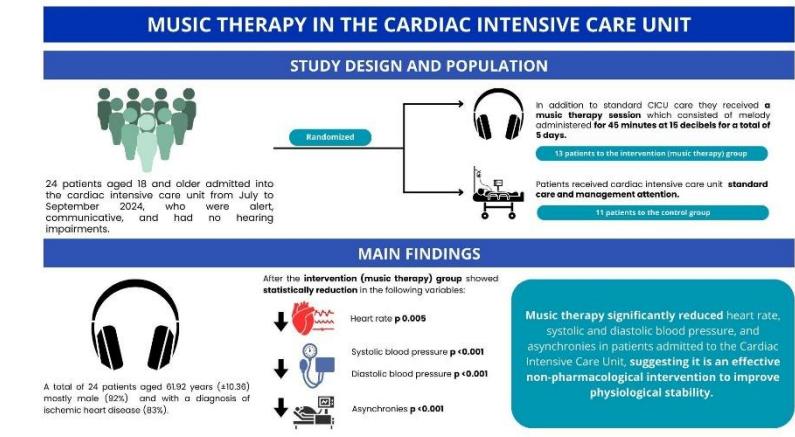
Background: Cardiac Intensive Care Units often cause physiological distress which may impact treatment outcomes. Music therapy aims to reduce costs and enhance patient comfort. This study analyzed music therapy's effect on physiological variables in cardiac intensive care unit patients.

Methods: Conducted as an open label randomized clinical trial from July to September 2024 with adults aged 18 and older admitted to the Cardiac Intensive Care Unit who were alert, communicative, and had no hearing impairments. Patients were assigned to either a music therapy group, receiving 45-minute sessions for 5 days, or a control group with standard care. Physiological variables were measured at the start and end of the intervention in both groups.

Results: A total of 24 patients aged 61.92 years (± 10.36) mostly male (92%) were randomized, 11 (46%) to the control group and 13 (54%) to the intervention group. After the intervention music therapy group showed

statistically reduction in heart rate ($p = 0.005$), systolic blood pressure ($p < 0.001$), diastolic blood pressure ($p < 0.001$) and in asynchronies ($p < 0.001$) in comparison with the control group.

Conclusion: Music therapy significantly reduced heart rate, systolic and diastolic blood pressure, and asynchronies in patients admitted to the Cardiac Intensive Care Unit, suggesting it is an effective non-pharmacological intervention to improve physiological stability. Larger studies are needed to support the integration of music therapy into standard care.



Control Number: 25-A-936-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-44

Poster Board Number: 44

Topic 1: Interventions and Ischemic Heart Diseases

Publishing Title: ELECTROCARDIOGRAPHIC AND ECHOCARDIOGRAPHIC PARAMETERS RELATED TO SUDDEN CARDIAC DEATH IN YOUNG PEOPLE WHO SUFFERED ACUTE MYOCARDIAL INFARCTION

Author Block: Liliam Gretel Cisneros Sánchez, Enrique Cabrera Hospital, La Habana, Cuba

Background: Although the incidence of acute myocardial infarction in young people is low, morbidity, psychological effects, and the risk of recurrent infarction, heart failure, or sudden cardiac death (SCD) are significant factors that still require further study, because the emotional impact of SCD in young patients is devastating. The purpose of the study was to identify whether there is a relationship between potential risk markers for SCD and its occurrence in young patients who suffered an acute myocardial infarction.

Abstract Body: **Methods:** A prospective observational study was conducted on 73 patients under 45 years old, who were admitted with a diagnosis of ST-segment elevation myocardial infarction. The occurrence of sudden cardiac death was analyzed over a 12-month period, and its relationship with functional class, electrocardiographic parameters and echocardiographic parameters was assessed by Fisher test. The strength of the relationship between the variables was assumed to be significant when the significance level obtained was lower than the established significance level. ($p < 0.05$)

Results: Only 5 percent of patients suffered sudden cardiac death during the study period. The occurrence of this event was associated with

functional class II-III (p: 0.029), the presence of acute atrial fibrillation during hospitalization (p: 0.007), QT interval prolongation on electrocardiogram (p: 0.013), left atrial high pressure (p: 0.010) and a left ventricular ejection fraction (LVEF) of less than 40% (p: 0.000). In multivariate analysis, LVEF less than 40% was identified as an independent predictor of SCD occurrence.

Conclusion: There were electrocardiographic and echocardiographic parameters associated with the occurrence of sudden cardiac death in patients under 45 years old who suffered myocardial infarction. Left ventricular ejection fraction less than 40% was found to be the strongest predictor of sudden cardiac death occurrence.

Control Number: 25-CCC-811-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-45

Poster Board Number: 45

Topic 1: Multimodal Imaging

Publishing Title: ADVANCED IMAGING IN CLINICAL CARDIOLOGY: THE ROLE OF CMR IN SUSPECTED NOONAN SYNDROME WITH HYPERTROPHIC CARDIOMYOPATHY

Author Block: Mariana Berganza, Jessica Mercedes, Carlos Franco, Maria Alejandra Duran Castellanos, Oscar Arnulfo Cortez, William Alberto Palma Romero, Juan Manuel Quintanilla, Hospital Nacional Rosales, San Salvador, El Salvador

Background: Noonan syndrome (NS) is a genetic disorder with autosomal dominant inheritance, characterized by facial dysmorphism, congenital heart defects, short stature, and developmental delay. Hypertrophic cardiomyopathy (HCM) is one of its most frequent cardiac manifestations, particularly in RAS/MAPK mutations, with a reported prevalence of 20-30%.

Case: A 25-year-old male presented with obstructive HCM (HOCM) and phenotypic features suggestive of NS. He had a history of palpitations in 2019 but was lost to follow-up during the COVID-19 pandemic. In 2023, he was hospitalized with abdominal pain, developed heart failure and cardiac arrest due to ventricular fibrillation, requiring ICU care. During recovery, HCM with asymmetric septal hypertrophy (17 mm), LVOT gradient of 71 mmHg and SAM were documented. Cardiac MRI confirmed HOCM with septal predominance, elevated native T1 mapping, and late gadolinium enhancement. Genetic testing was unavailable.

Decision-making: Van der Burgt clinical criteria supported a syndromic diagnosis. In the absence of molecular confirmation, clinical assessment

Abstract Body:

and advanced imaging (particularly cardiac MRI) were essential to guide diagnosis and risk stratification.

Conclusion: This case illustrates how careful phenotypic assessment and cardiac MRI enabled the recognition of a probable syndromic cardiomyopathy, supporting the diagnosis of Noonan syndrome in a patient with life-threatening HOCM, even without genetic testing.

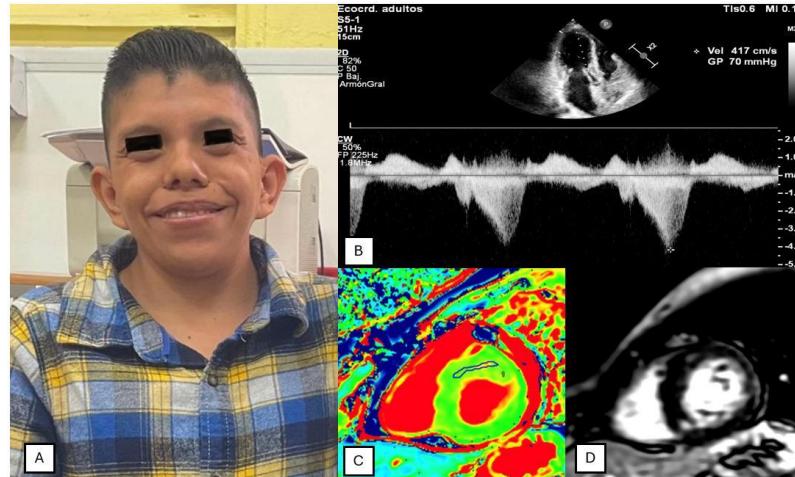


FIGURE 1. **A.** Clinical view of the patient. **B.** Transthoracic echocardiogram, apical 3-chamber view: elevated gradient in the left ventricular outflow tract (LVOT). **C.** Cardiac MRI, short-axis view: hypertrophic obstructive cardiomyopathy (HOCM) with septal predominance and elevated native T1 mapping (1108 ms). **D.** Late gadolinium enhancement (LGE) at the right ventricular insertion points within the hypertrophied myocardium.

Control Number: 25-CCC-822-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-46

Poster Board Number: 46

Topic 1: Multimodal Imaging

Publishing Title: CARDIAC MRI AS A KEY TOOL IN CHAGAS CARDIOMYOPATHY: A DIAGNOSTIC BREAKTHROUGH

Fernando Joaquín Acuña Anaya, Erick Alexanderson Rosas, Gabriela Meléndez Ramírez, Marian Serna Murga, María Fernanda Rosas Anaya, Hatzel Heriberto Aguilar Hernández, Iñaki Leonel Salgado Rodríguez, Itza Lisseth Huerta Martínez, Paola Apolíneo, María Fernanda González Najera, Javier Sanchez Ham, Aloha Meave, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

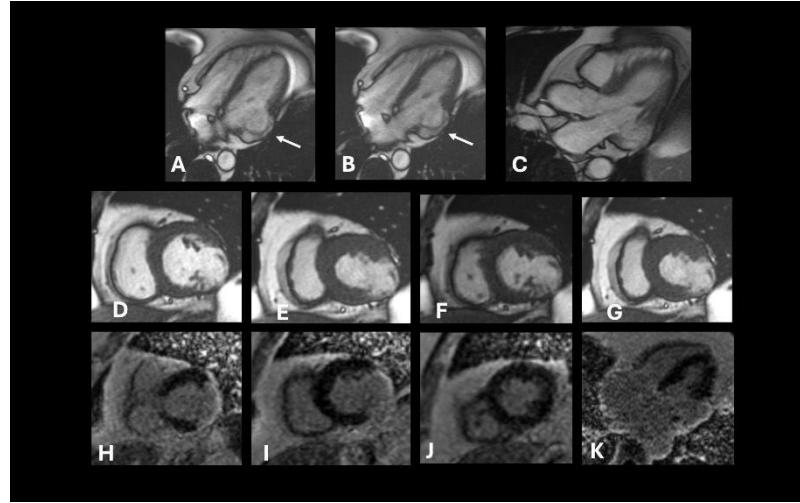
Background: Chagas cardiomyopathy (CCM) is a chronic inflammatory disease that can course with ventricular arrhythmias, ventricular dysfunction and/or conduction abnormalities. It can mimic ischemic and dilated heart disease.

Case: A 67-year-old woman presented with palpitations and dyspnea. She had a history of sustained monomorphic ventricular tachycardia requiring cardioversion. Cardiac magnetic resonance imaging showed a lateral LV aneurysm extending from basal to mid-segments with transmural late gadolinium enhancement (LGE), and mid-wall septal LGE. Coronary computed tomography angiography (CCTA) ruled out significant coronary artery disease (CAD). Positive *Trypanosoma cruzi* serology confirmed CCM. Due to religious beliefs, she declined implantable cardioverter-defibrillator. Treatment with amiodarone and beta-blockers led to reduced ventricular ectopy and improved symptoms over 3 years.

Abstract Body:

Decision-making: This case highlights the diagnostic role of cardiac magnetic resonance imaging in distinguishing Chagas cardiomyopathy from other heart disease. Lateral wall aneurysm and mixed LGE pattern raised the suspicion of CCM which was confirmed with serology. Apical aneurysm which in this case was not present is also a characteristic finding.

Conclusion: CCM should be considered in patients with ventricular arrhythmias and lateral/apical aneurysms with preserved or reduced ejection fraction.



Control Number: 25-CCC-826-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-47

Poster Board Number: 47

Topic 1: Multimodal Imaging

Publishing Title: THE IRON CAGE HEART: A CASE OF CONSTRICITIVE PERICARDITIS

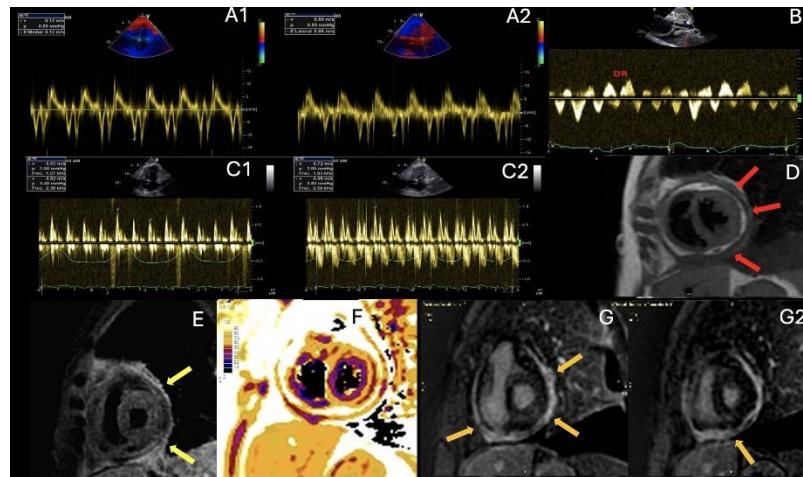
Author Block: Miguel Delgado, SR, Pamela Pina Santana, Roberly Marcelino Camilo, Felix R. Almanzar, JR, Cesar J. Herrera, CEDIMAT, Santo Domingo, Dominican Republic

Background: Constrictive pericarditis (CP) is a rare cause of heart failure that requires high clinical suspicion for diagnosis. Non-invasive imaging, particularly echocardiography and cardiac magnetic resonance (CMR) imaging, is crucial for the detection and guidance of treatment. CMR is especially useful in identifying active inflammation, which may indicate a reversible etiology.

Case: A 66-year-old woman with a history of thoracic radiotherapy (20 years prior) and recent viral illness presented with progressive dyspnea and refractory pulmonary edema. Chest CT showed pericardial thickening with bilateral pleural effusions. Echocardiography revealed findings consistent with constrictive physiology, confirming the diagnosis of CP.

Decision-making: Initial treatment with NSAIDs and colchicine led to partial improvement. Due to persistent symptoms, she was readmitted and a CMR was obtained, revealing circumferential pericardial edema and late gadolinium enhancement. Based on these findings, prednisone 30 mg daily was initiated, with gradual symptomatic improvement. The patient remains asymptomatic, and tapering has been initiated.

Conclusion: CP is a potentially reversible cause of HFrEF, particularly when active inflammation is present. In resource-limited settings, a multimodal imaging strategy enhances diagnostic confidence and guides effective treatment.



A. Tissue Doppler Imaging showing medial mitral annulus velocity of 12cm/s (A1) and a lateral annulus velocity of 8cm/s (A2), demonstrating *annulus reversal*. **B.** Hepatic Vein Doppler showing expiratory flow reversal. **C.** Tricuspid (C1) and mitral (C2) pulsed Doppler showing respiratory variation. **D.** CMR T1 sequence depicting marked pericardial thickening (red arrows). **E.** CMR STIR-T2 sequence showing marked circumferential pericardial edema (yellow arrows). **F.** Increased T2 mapping time (>60ms) in the pericardium, suggesting edema. **G.** CMR LGE sequence revealing circumferential pericardial enhancement (orange arrows).

Control Number: 25-CCC-844-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-48

Poster Board Number: 48

Topic 1: Multimodal Imaging

Publishing Title: STERNAL INTRASSEOUS PSEUDOANEURYSM FROM THE RIGHT VENTRICULAR OUTFLOW TRACT

Author Block: Katia Millaray Rivera, Rodrigo Vicente Gonzalez, Polentzi Uriarte, Francisca Arancibia, Anita Rubilar, Sofia Lay, Instituto Nacional del Tórax, Santiago, Chile

Background: **Tetralogy of Fallot is the most frequently operated congenital heart disease in adults.** This case underscores the importance of performing a CT scan prior to reinterventions in patients with congenital heart disease, in order to evaluate the risk of resternotomy and to properly plan the surgical approach.

Case: An 18-year-old patient with a diagnosis of Tetralogy of Fallot with pulmonary atresia, surgically repaired in childhood. CT scan revealed an intraosseous pseudoaneurysm. The patient was taken to cardiac surgery under a high-risk sternotomy protocol, with a baseline hemoglobin of 19 g/dL. The surgery was performed on a beating heart. The entire remnant of the pericardial conduit was resected and replaced with a custom-made valved conduit, using a 26 mm Dacron graft and a 23 mm Epic valve. No blood products or coagulation factors were administered. The patient had an uneventful postoperative course, was extubated early in the intensive care unit. No postoperative bleeding was observed, and the hemoglobin level before hospital discharge was 13 g/dL.

Decision-making: Our sternotomy protocol includes performing a

preoperative CT scan, establishing peripheral cannulation, and initiating cardiopulmonary bypass in cases of high-risk sternotomy, among other measures.

Conclusion: Surgical planning and multidisciplinary teamwork in the operating room (including surgery, anesthesia, and perfusion) are crucial to ensure the success of these interventions.



Control Number: 25-CCC-923-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-51

Poster Board Number: 51

Topic 1: Multimodal Imaging

Publishing Title: PREECLAMPSIA: WHEN THE PROBLEM IS NOT IN THE PLACENTA BUT IN THE AORTA

Author Block: Joel Emilio Santana Fernandez, Luis Cuello, Monica Rosario, Pamela Pina Santana, Cesar J. Herrera, Cedimat cardiovascular center, Santo Domingo, Dominican Republic

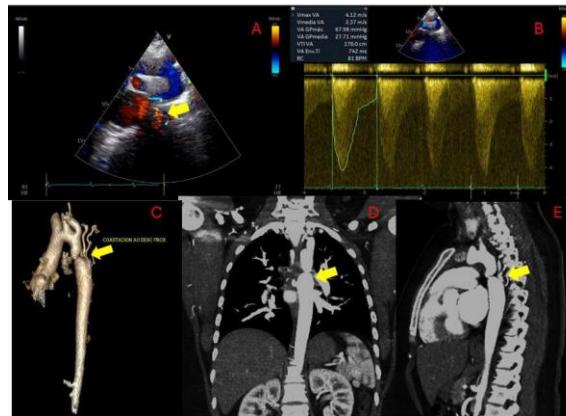
Background: Preeclampsia is a severe obstetric complication, While typically attributed to placental dysfunction, some cases may reflect underlying cardiovascular pathology. In the postpartum setting, persistent hypertension warrants evaluation for secondary causes, particularly in young women.

Abstract Body: A 30-year-old woman with no prior cardiovascular history was referred to cardiology for persistent hypertension after cesarean delivery at 36 weeks due to preeclampsia. Despite medical therapy, blood pressure remained elevated in the postpartum period.

Decision-making: On physical examination, absent lower extremity pulses raised suspicion for aortic coarctation. Transthoracic echocardiography revealed elevated gradients at the proximal descending thoracic aorta (see Figure). Subsequent thoracic CT angiography confirmed the presence of aortic coarctation, identifying it as the etiology of her refractory hypertension.

Conclusion: This case highlights the importance of evaluating secondary causes of hypertension in patients with preeclampsia, particularly

postpartum Persistent hypertension. Aortic coarctation, though rare in adults, should be considered in young hypertensive patients with pulse differences. Early detection can guide timely intervention and reduce the risk of long-term cardiovascular morbidity, particularly during pregnancy.



A) TTE suprasternal view color Doppler of the aortic arch and proximal descending thoracic aorta showing aliasing due to aortic coarctation (arrow). **B**) Spectral Doppler of the proximal descending thoracic aorta demonstrating a peak gradient of 27 mmHg. **C**) Chest CT 3D reconstruction of the aorta revealing severe narrowing of the aorta, distal to the subclavian artery (arrow). **D-E**) Chest CT coronal and sagittal views depicting the aortic coarctation and collateral circulation.

Control Number: 25-CCC-935-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-52

Poster Board Number: 52

Topic 1: Multimodal Imaging

Publishing Title: RECURRENT SYSTEMIC EMBOLISM AS THE INITIAL PRESENTATION OF AN ATRIAL MYXOMA: CASE REPORT

Author Oscar Arnulfo Cortez, Jessica Mercedes, Mariana Berganza, Maria Alejandra Duran Castellanos, Juan Manuel Quintanilla, William Alberto palma romero,
Block: Carlos Franco, Hospital Nacional Rosales, San Salvador, El Salvador, El Salvador

Background: Atrial myxoma is the most common primary benign tumor of the heart. Although histologically benign, it may initially present with severe embolic events.

Case: A 58-year-old woman with hypertension and diabetes, previously asymptomatic, presented with thrombosis of the right brachial artery and, four months later, an ischemic cerebral infarction. Transthoracic echocardiography revealed a mass in the left atrium. Cardiac magnetic resonance imaging confirmed a multilobulated mass with intermediate signal intensity, implanted in the interatrial septum and protruding toward the mitral valve. Coronary CT angiography showed tumor prolapse through the mitral orifice, without coronary vascular abnormalities. Complete surgical resection was performed without complications. Histology confirmed a myxoma with myxoid stroma, spindle-shaped cells, and mucopolysaccharide matrix. The clinical course was favorable.

Decision-making: Embolism occurs in up to 40% of myxomas. Approximately 20% initially present with neurological events, and up to 14%

with peripheral embolism. This behavior is related to their friable surface, which may fragment, and their irregular shape, which promotes thrombus formation.

Conclusion: In the setting of recurrent embolic events, imaging protocols should include atrial myxoma as a potential cardioembolic source.

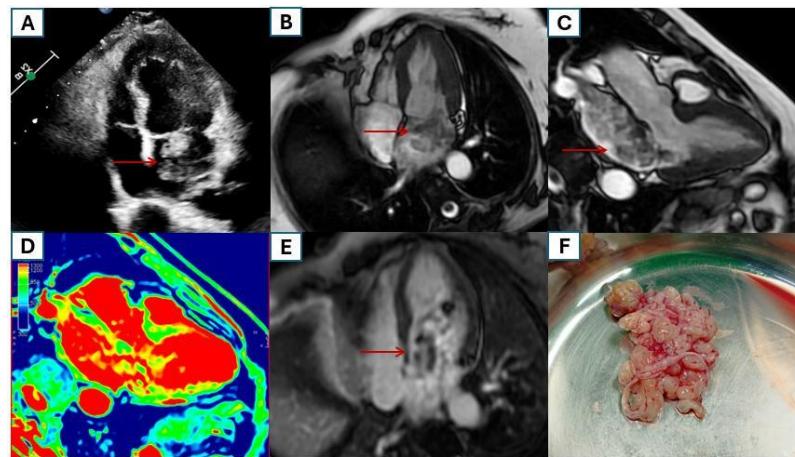


Figure 1. Multimodal characterization of a left atrial myxoma: A) Transthoracic echocardiogram: hyperechoic, lobulated mass attached to the interatrial septum and protruding toward the mitral valve. B-C) Cardiac magnetic resonance: mobile, multilobulated mass with septal implantation and prolapse through the mitral valve. D) T1 mapping: elevated relaxation time suggesting increased extracellular content. E) Gadolinium-enhanced image: heterogeneous contrast uptake, typical of myxomas. F) Surgical specimen: multilobulated, gelatinous, friable mass consistent with myxoma.

Control Number: 25-CCC-955-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-53

Poster Board Number: 53

Topic 1: Multimodal Imaging

Publishing Title: SLOW HEARTBEATS, KEY DIAGNOSIS: MYOCARDITIS DUE TO DENGUE VIRUS INFECTION

Author Block: Oscar Vergara Huidor, Maria Fernanda Ruiz Gómez, Carlos Eduardo Sotomayor Casillas, Linda Elizabeth Monico Aceves, Cesar Adrian Guerrero Vega, Ximena Medina Fernandez, Harold Goerne Ortiz, Christian González Padilla, Hospital Civil de Guadalajara "Fray Antonio Alcalde", Guadalajara, Mexico

Background: Dengue virus is a common arboviral infection in tropical areas. Myocardial involvement is rare but potentially serious. Bradycardia in dengue is often benign, but myocarditis must be ruled out

Case: A 42-year-old woman without significant medical history presented with abdominal pain, vomiting, and oral intolerance seven days after a febrile syndrome. NS1 antigen was positive. On admission, asymptomatic sinus bradycardia (min HR 37 bpm) was detected. General and cardiopulmonary physical examination showed no abnormalities. Labs showed elevated BNP 2178 and troponin I (0.12) — above the laboratory normal cutoff of 0.1. ECG showed sinus rhythm with no ischemic changes; Holter confirmed persistent bradycardia. The transthoracic echocardiogram showed normal systolic/diastolic function. Cardiac MRI revealed biventricular normal function (LVEF 59%, RVEF 52%) and findings consistent with myocarditis: subepicardial edema and late gadolinium enhancement in basal and mid inferior/inferolateral segments, with normal chamber size and no pericardial

Abstract Body:

effusion.

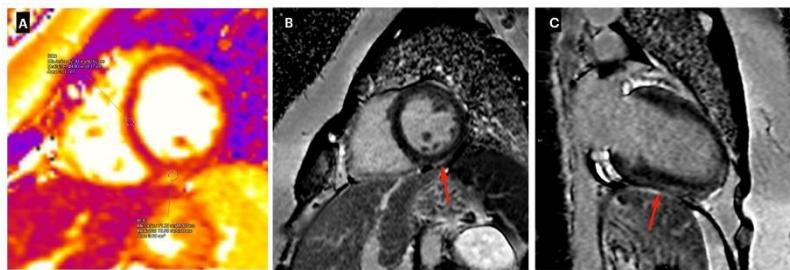


Image 1. A. T2 mapping. Increased relaxation time in the inferior subepicardial region (78.7 ms) compatible with edema. Normal is less than 50 ms (septum 48.8 ms). B and C. Late gadolinium enhancement with a non-ischemic subepicardial pattern in the basal inferior, basal inferolateral, mid inferior, and mid inferolateral segments (red arrows) in short-axis and two-chamber views.

Decision-making: Dengue myocarditis may be underdiagnosed. Elevated biomarkers, even with normal imaging and absent symptoms, support stage B myocarditis per ACC/AHA

Conclusion: In dengue patients with unexplained bradycardia, myocarditis should be considered—even with stable clinical status

Control Number: 25-CCC-956-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-54

Poster Board Number: 54

Topic 1: Multimodal Imaging

Publishing Title: UNIVENTRICULAR HEART AND TOTAL SITUS INVERSUS WITH DOBLE-OUTLET RIGHT VENTRICULE IN A ADULT MAN

Author Block: Saul Yair Guillot Castillo, María Alejandra Monroy Jiménez, Elias Noel Andrade Cuellar, Andrea Paulina Maldonado Tenesaca, Rocio Aceves Millan, Vincenzo Arenas Fabbri, Ivan Alejandro Elizalde Uribe, National Medical Center "November 20", Institute of Security and Social Services of State Workers, Mexico City, Mexico

Background: Double-outlet right ventricle is a complex conotruncal anomaly in which both great arteries arise predominantly from the right ventricle. The coexistence of total situs inversus and univentricular physiology is exceedingly rare.

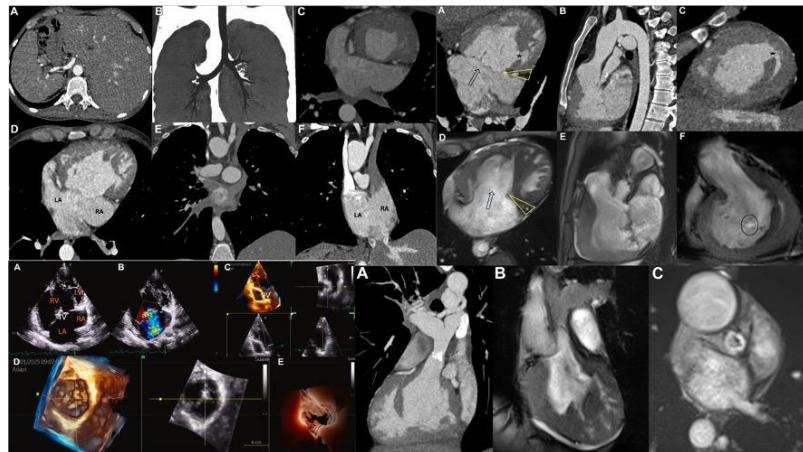
Case: A 38-year-old man presented with severe chronic cyanosis (baseline oxygen saturation 65%), NYHA functional class III dyspnea, and right-sided heart failure. Multimodal imaging (echocardiography, CT, and cardiac magnetic resonance) confirmed total situs inversus, a markedly hypoplastic left ventricle anatomically isolated by a muscular ridge, and double-outlet right ventricle with moderate subpulmonary stenosis. His condition was stabilized medically, but surgical risk was deemed prohibitive owing to his advanced age and univentricular physiology

Decision-making: This case underscores the critical importance of comprehensive imaging for delineating complex intracardiac anatomy and illustrates how moderate subpulmonary stenosis can temper pulmonary

Abstract Body:

overcirculation, thereby prolonging survival

Conclusion: Comprehensive multimodal imaging is indispensable for defining the anatomy, assessing ventricular function, and tailoring the therapeutic approach which could include univentricular palliation or transplantation depending on clinical status and the degree of pulmonary hypertension



Control Number: 25-CCC-765-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-55

Poster Board Number: 55

Topic 1: Valvular Diseases

Publishing Title: INFECTIVE ENDOCARDITIS IN CONGENITALLY CORRECTED TRANSPOSITION, A DIAGNOSTIC AND THERAPEUTIC CHALLENGE

Author Block: Marco Daniel Pérez Beltran, Adan R. Mares, Hospital General de Mexico, Mexico City, Mexico

Background: We present the case of a young patient with congenitally corrected transposition of the great arteries, complicated by pulmonary valve endocarditis and successfully managed with surgical intervention.

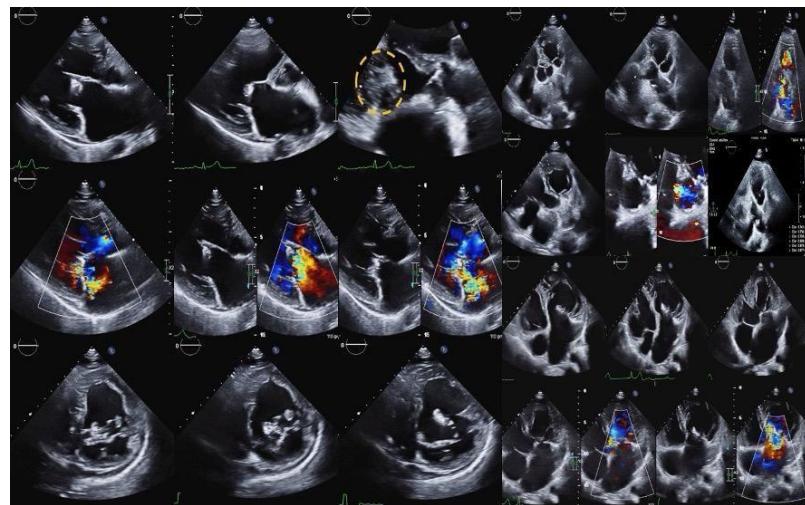
Case: A 23-year-old male presented with fever, and diaphoresis. Transthoracic echocardiography showed situs solitus with a systemic right ventricle morphology, a tricuspid atrioventricular valve with severe regurgitation, and a muscular ventricular septal defect. A vegetation was observed extending toward the septal leaflet of the tricuspid valve.

Abstract Body: Additionally, a discordant ventriculo-arterial connection was documented, with multiple vegetations involving the pulmonary artery trunk and bifurcation, causing severe supravalvular pulmonary stenosis.

Decision-making: The patient underwent successful surgery, including vegetectomy, pulmonary valve replacement, tricuspid commissurotomy, and ventricular septal defect repair. Patient showed favorable clinical evolution and was discharged without complications.

Conclusion: The unique anatomical and hemodynamic characteristics of transposition of the great arteries, including atrioventricular and ventriculoarterial discordance, systemic right ventricular function, and

frequent association with other structural anomalies, contribute to both increased susceptibility and diagnostic challenges when endocarditis occurs.



Control Number: 25-CCC-782-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-56

Poster Board Number: 56

Topic 1: Valvular Diseases

Publishing Title: THE HIDDEN THREAT OF A PERSISTENT DUCTUS ARTERIOSUS: TRIVALVULAR ENDOCARDITIS AND PULMONARY ENDARTERITIS WITH SYSTEMIC CONSEQUENCES

Author Block: Brenda D. Rodríguez Escenaro, Alexis Daniel Martínez Jiménez, Karla Y. Franco Rodríguez, Kevin A. Bravo Gómez, Sergio A. Patron Chi, Jose Luis Briseño De La Cruz, Bryan D. Lopez Trejo, Joaquin Berarducci, Maria A. Arias Mendoza, Rafael Sanez Reyes, Braiana A. Díaz Herrera, Francisco Bolaños Prats, Instituto Nacional de Cardiología "Ignacio Chavez", Ciudad de México, Mexico

Background: Infective endocarditis (IE) with multivalvular and pulmonary artery involvement is exceptionally rare. Its association with uncorrected congenital defects, such as a persistent ductus arteriosus (PDA), has an annual incidence of 0.14-0.4%.

Case: An 18-year-old woman presented with 4-week fever, murmur, NYHA IV dyspnea, and edema. TTE showed PDA, biventricular dysfunction, and vegetations on the aortic, mitral, pulmonary valves and pulmonary artery. TEE confirmed multivalvular IE, aortic root abscess, and pulmonary endarteritis. CT revealed multiple pulmonary septic emboli. She underwent mitral and aortic valve replacement, pulmonary valve debridement, PDA closure and pulmonary artery reconstruction. Postoperative EF was 15%. She improved clinically and received heart failure and antibiotic therapy.

Decision-making: IE in adults with uncorrected PDA is uncommon.

Turbulent flow predisposes to endarteritis, but extension of IE to multiple valves with abscess and septic emboli is rare. Multidisciplinary approach and early surgery is key in complex cases to reduce mortality, reported up to 30%.

Conclusion: This case highlights the need for early recognition of congenital heart defects, such as a PDA, which may remain silent until complicated by infective endocarditis. It also emphasizes timely detection and a multidisciplinary approach to improve outcomes among the aforementioned complications. The patient remains in NYHA class II, with gradual recovery under close follow-up.

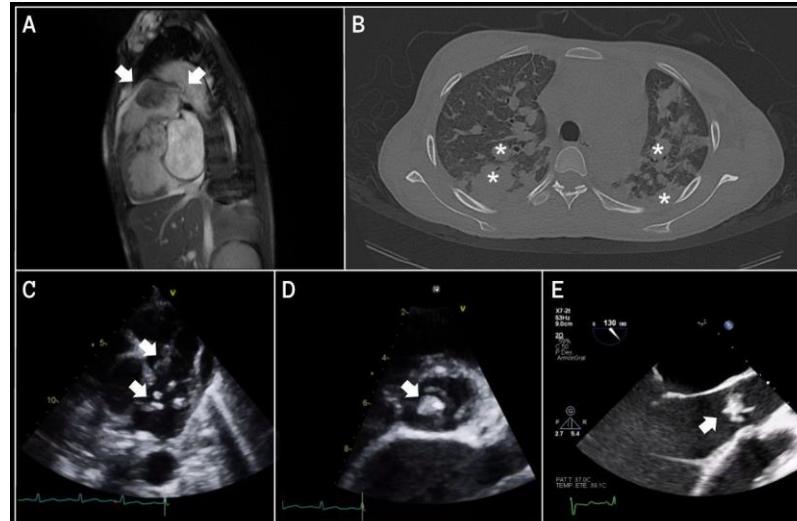


Figure 1. A. MRI demonstrating the anterior aspect of the main pulmonary artery trunk (left arrow) and a patent ductus arteriosus (right arrow). *B.* Bilateral pulmonary infiltrates identified on CT pulmonary angiography. *C.* TTE demonstrating vegetations within the pulmonary artery (lower arrow) and pulmonary valve (upper arrow). *D, E.* Vegetations on the aortic valves visualized on TEE.

Control Number: 25-CCC-829-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-57

Poster Board Number: 57

Topic 1: Valvular Diseases

Publishing Title: A SILENT INFILTRATOR: SUBACUTE HACEK INFECTIVE ENDOCARDITIS COMPLICATED BY MITROAORTIC ABSCESS AND COMPLETE HEART BLOCK

Author Block: Jimmi Jancarlos Santana Tavarez, Pamela Pina Santana, Elvis Rivera, Cesar J. Herrera, CEDIMAT CARDIOVASCULAR CENTER, DISTRITO NACIONAL, Dominican Republic, INTEC, SANTO DOMINGO, Dominican Republic

Background: Infective endocarditis caused by HACEK organisms is rare but can lead to severe structural and conduction system complications. Early recognition and surgical intervention are critical in preventing irreversible damage.

Case: A 44-year-old male with a history of hypertension and prior Bentall surgery for type A aortic dissection (2019) presented to the emergency department with chest pain, dyspnea, and fever for three days. He was hemodynamically unstable and required non-invasive mechanical ventilation. ECG revealed complete atrioventricular block, prompting the placement of a temporary pacemaker. TEE showed a mitroaortic junction abscess. Blood cultures were positive for *Aggregatibacter aphrophilus* (a HACEK group microorganism). Despite targeted antibiotic therapy, clinical deterioration persisted.

Decision-making: Surgical exploration revealed an extensive abscess at the mitroaortic junction extending into the interventricular septum and anterior mitral leaflet. A Bentall procedure (aortic valve/root/ascending aorta replacement), Commando procedure (aortomitral reconstruction), and

Konno-Rastan procedure (LVOT enlargement) were performed.

Conclusion: Subacute HACEK endocarditis can progress insidiously, especially in previously operated patients, leading to life-threatening complications such as conduction blocks and abscess formation. Timely surgical management is crucial for favorable outcomes.

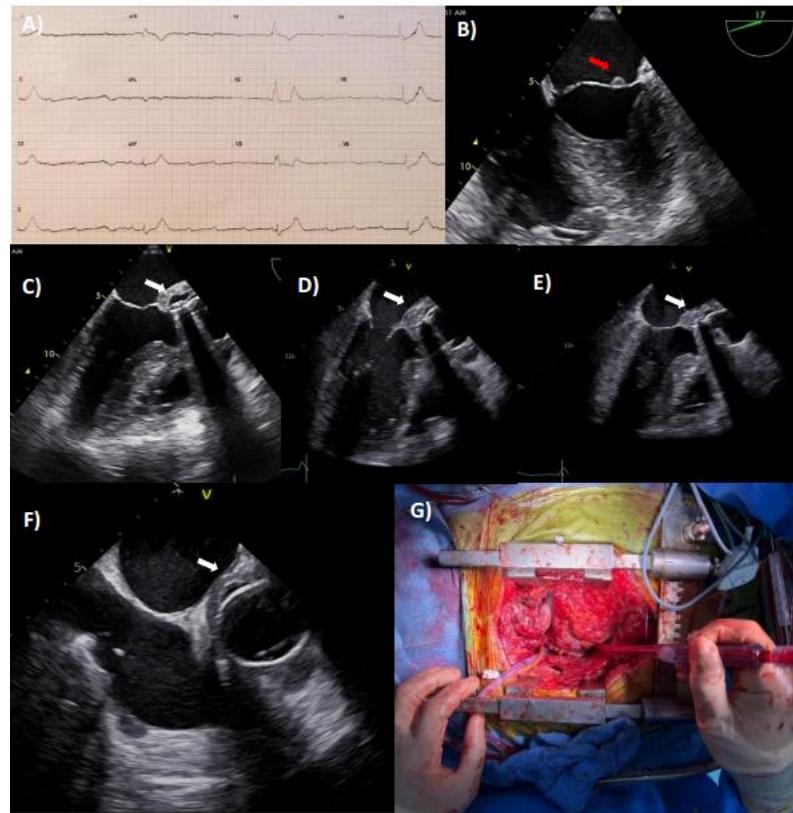


Image A: Electrocardiogram demonstrating marked atrioventricular dissociation, consistent with complete heart block. **B:** Transesophageal echocardiography (TEE) four-chamber view, showing a hyperechogenic, mobile structure on the posterior mitral leaflet suggestive of vegetation. **C-F:** TEE revealing a hyperechogenic thickening in the mitral-aortic continuity indicative of an extensive mitral-aortic intervalvular fibrosa abscess extending into the interventricular septum and anterior mitral leaflet. **G:** Intraoperative findings during a Bentall procedure combined with a Konno-Rastan enlargement.

Control Number: 25-CCC-851-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-58

Poster Board Number: 58

Topic 1: Valvular Diseases

Publishing Title: OBSTRUCTIVE PROSTHETIC VALVE THROMBOSIS MANAGED WITH FIBRINOLYSIS, COMPLICATED BY ISCHEMIC STROKE AND CORONARY EMBOLISM

Author Jesús Miguel Rojas-Velázquez, Fernando Barba Arce, Omar R. González Greck, Karla Patricia Delgado Samaniego, Aylen Perez Barreda, Anibal González Trujillo, Instituto de Cardiología y Cirugía Cardiovascular, La Habana, Cuba

Background: This case describes an obstructive prosthetic valve thrombosis managed with fibrinolysis, complicated by ischemic stroke and coronary embolism.

Case: A 63-year-old female with a mechanical aortic valve implanted one year prior presented with progressive dyspnea. Physical exam revealed inaudible prosthetic click and signs of pulmonary congestion.

Abstract Body: Echocardiography showed high gradients and severe regurgitant jet; fluoroscopy confirmed fixed-disc obstruction.

Decision-making: Slow-infusion streptokinase was administered, resulting in clinical and echocardiographic resolution. At 24 hours, she developed an ischemic stroke with no hemorrhage on computed tomography.

Anticoagulation with heparin was restarted after 24 hours due to high rethrombosis risk. At 72 hours, she developed an acute coronary syndrome with inferior ST elevation. Coronary angiography revealed right coronary artery occlusion, successfully treated with thromboaspiration. She had a

favorable outcome and was discharged with effective anticoagulation and full neurological recovery.

Conclusion: This case highlights the role of fibrinolysis when surgery is not an option and the importance of close monitoring for embolic complications.

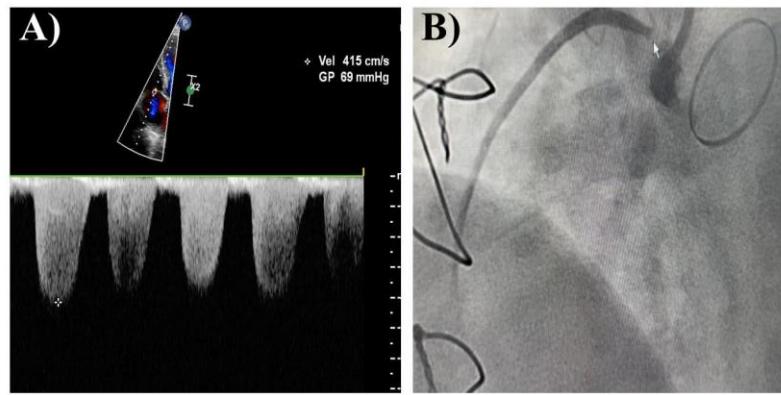


Figure 1A. Echocardiogram showing elevated transprosthetic gradients. Figure 1B. Coronary angiography demonstrating occlusion of the right coronary artery.

Control Number: 25-CCC-863-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-59

Poster Board Number: 59

Topic 1: Valvular Diseases

Publishing Title: ENDOVASCULAR TREATMENT OF FAILED ROSS PROCEDURE WITH AORTIC AND PULMONARY VALVE-IN-VALVE IMPLANTATION

Author Block: Diana Bonilla, Daniela Lekas, Antonio Dager Gomez, Stephania Cespedes, Oscar Ospina, Danilo Caceres, Angiografia de Occidente, Santiago de cali, Colombia

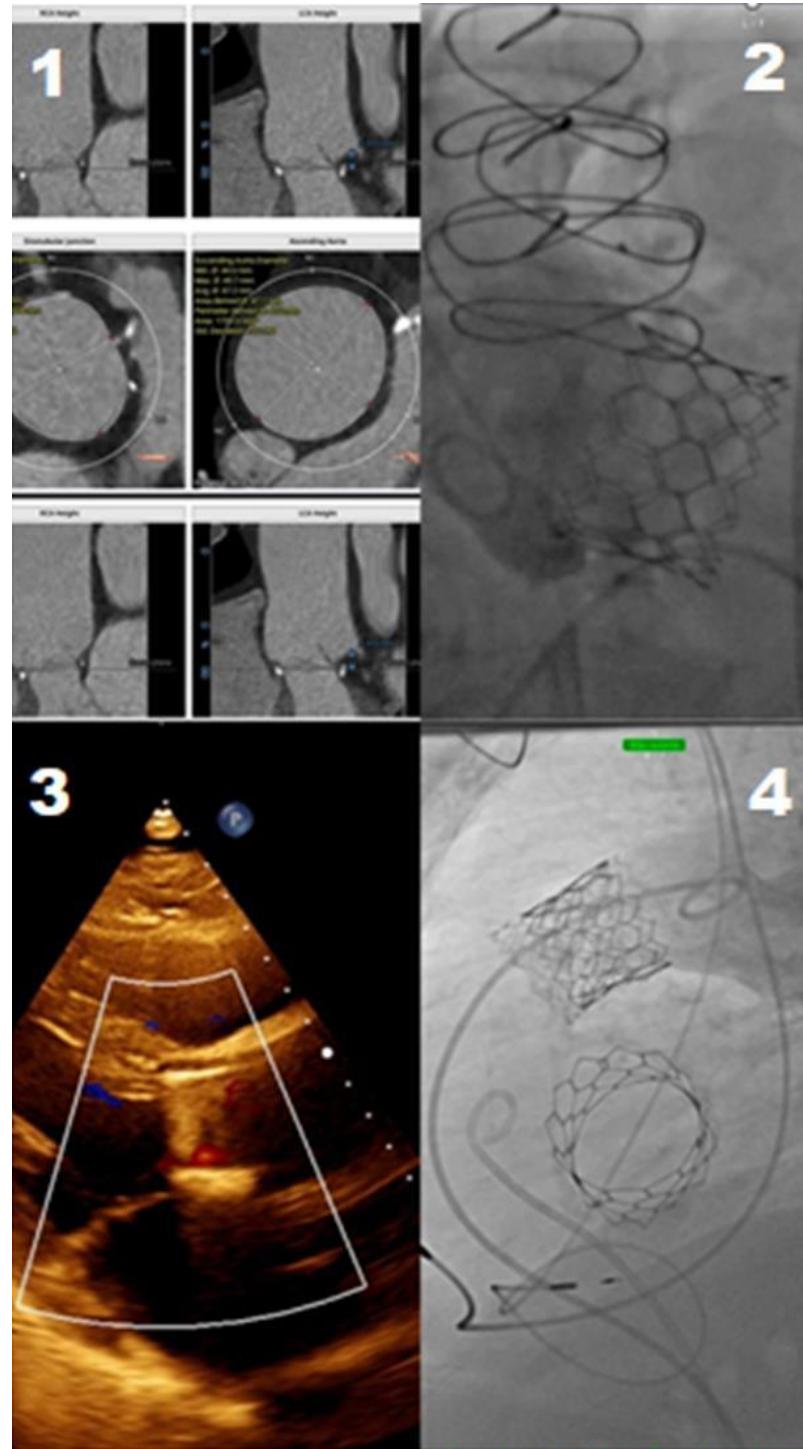
Background: The Ross procedure is a valuable option for young patients with aortic valve disease, replacing the aortic valve with the pulmonary autograft. Despite long-term benefits, late autograft or homograft failure can occur, requiring reintervention in elderly patients.

Case: A 76-year-old man with a history of Ross procedure in 2000 for severe aortic stenosis presented in 2024 with dyspnea, edema, and reduced functional capacity. Imaging confirmed severe aortic and pulmonary regurgitation. A two-stage endovascular plan was executed: in August 2024, a MyVal #26 valve was implanted in the aortic position; in May 2025, a MyVal #24.5 valve was placed in the pulmonary position. Both valve-in-valve procedures were successful. The patient experienced no perioperative complications and was discharged with restored biventricular function and improved symptoms.

Decision-making: This case illustrates the late failure of both grafts after Ross surgery and supports the feasibility of a fully endovascular rescue in high-risk patients. Valve-in-valve therapy with balloon-expandable prostheses may be preferable to surgical reintervention in elderly patients

with prior complex surgeries.

Conclusion: Endovascular valve-in-valve replacement offers a safe, effective, and minimally invasive alternative in managing Ross failure in elderly patients with dual valve degeneration.



Control Number: 25-CCC-901-ACCLA

Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-60

Poster Board Number: 60

Topic 1: Valvular Diseases

Publishing Title: INTRINSIC SINUS NODE DYSFUNCTION IN SEVERE EBSTEIN'S ANOMALY TREATED WITH AN EPICARDIAL PACEMAKER AND SURGERY ONE AND A HALF.

Author Block: CARLOS JAZAEL MERINO RAMIREZ, Edgar Garcia Cruz, Luis D. Garcia Rosales, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, México

Background: Ebstein's anomaly is a rare congenital heart disease. A 40-year-old patient was diagnosed with Ebstein-Carpentier anomaly C, severe tricuspid regurgitation, and atrial fibrillation. The patient had chest pain, sudden dyspnea, syncope, and signs of right heart failure, systemic venous congestion, and third-degree atrioventricular block (AVB).

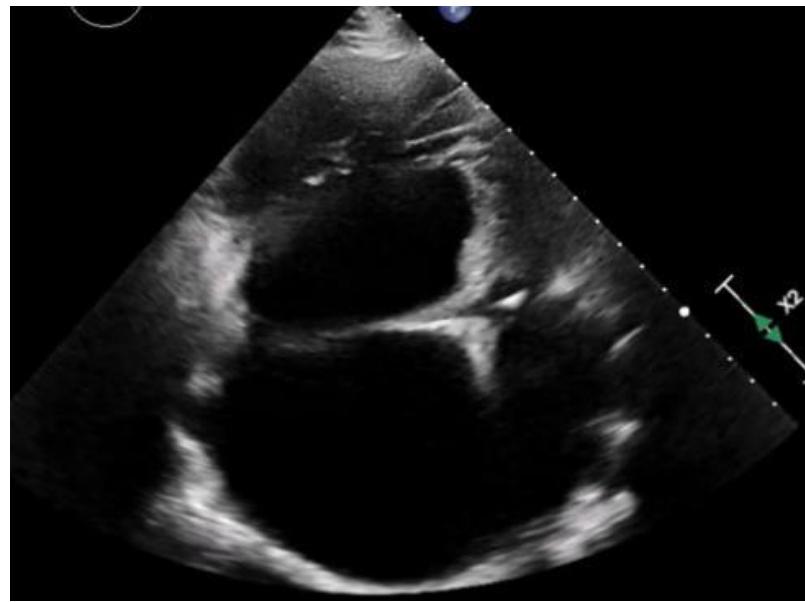
Case: A temporary pacemaker was placed. Laboratory studies: CRP 27 mg/L, NT-proBNP 30, 225 pg/mL, and troponin T 225. Echocardiogram:

Abstract Body: Ebstein's anomaly grade 3, dilated right chambers, severe tricuspid regurgitation, diastolic dysfunction without elevated filling pressures. MRI: moderate Ebstein's anomaly, Celermajer severity index: 1 (grade 3) given the likelihood of requiring surgery within a year and a half. Cardiac catheterization reported: mean arterial pressure of 12 mmHg and LVD2 of 12 mmHg.

Decision-making: Due to severe right ventricular dysfunction, it was decided to proceed with one-and-a-half-step surgery, placement of a tricuspid valve prosthesis, plication of the atrialized portion of the right

ventricle, bidirectional cavopulmonary hemorrhage, closure of the septal paravalvular leak. She was discharged two weeks later in functional class I.

Conclusion: Complete atrioventricular block is a rare presentation of functional class deterioration in patients with Ebstein's anomaly. One-and-a-half-step valve surgery is an increasingly common surgical option for these patients.



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Session Title: Saturday Afternoon Poster Session

Session Time: Saturday, September 20, 2025, 3:20 pm - 3:50 pm

Presentation Number: 43-61

Poster Board Number: 61

Topic 1: Valvular Diseases

Publishing Title: WHAT'S NEXT WHEN THE HEART TEAM HESITATES? A CASE OF SEVERE DECOMPENSATED HEMOLYSIS IN BIOLOGICAL PROSTHESES.

Author Jose Pablo Velasquez Padilla, Alejandro Rojas, Dulce Renee Soto Gonzalez,
Block: GERARDO ENRIQUE LOPEZ MORA, Alfonso Perez Falcon, Jimena Maria Pinto
Velasquez, CARLOS JAZAEL MERINO RAMIREZ, Erick Manuel Camacho,
National Institute of Cardiology Ignacio Chavez, Mexico, Mexico

Background: Aortic and Mitral Valve Replacement with Bioprostheses 2019,
Atrial Fibrillation

Case: 67-year-old female was admitted with acute anemic syndrome and kidney injury, with diarrhea in the previous 10 days. Lab results: Hb 7.1 g/dL, Cr 10.4 mg/dL, schistocytes, low haptoglobin. Echocardiogram 4 months before: bioprostheses functioning normally, no leak. Thrombotic microangiopathy was suspected; plasmapheresis was administered. TTP (ADAMTS13 normal) and HUS (Shiga toxin negative) were ruled out. Renal biopsy showed pigmentary tubulopathy. Autoimmune studies and CT scans were unremarkable. Subsequent echocardiogram showed moderate mitral regurgitation. Heart team initially ruled out mechanical hemolysis. The patient was readmitted with new hemolytic anemia; cytometry for PNH was negative. Transesophageal echocardiogram revealed degeneration of the mitral bioprostheses with severe regurgitation. Mitral valve replacement and patch reconstruction were performed. Follow-up showed normal Hb and no evidence of hemolysis.

Abstract Body: Jose Pablo Velasquez Padilla, Alejandro Rojas, Dulce Renee Soto Gonzalez,
GERARDO ENRIQUE LOPEZ MORA, Alfonso Perez Falcon, Jimena Maria Pinto
Velasquez, CARLOS JAZAEL MERINO RAMIREZ, Erick Manuel Camacho,
National Institute of Cardiology Ignacio Chavez, Mexico, Mexico

Decision-making: After ruling out other causes of hemolysis, a repeat echocardiogram revealed bioprosthetic degeneration in less than 4 months.

Conclusion: Eyster, Skoulios and Horskotte criteria help us diagnose mechanical intravascular hemolysis associated with valve dysfunction, although bioprostheses are a rare cause, we should always consider it..

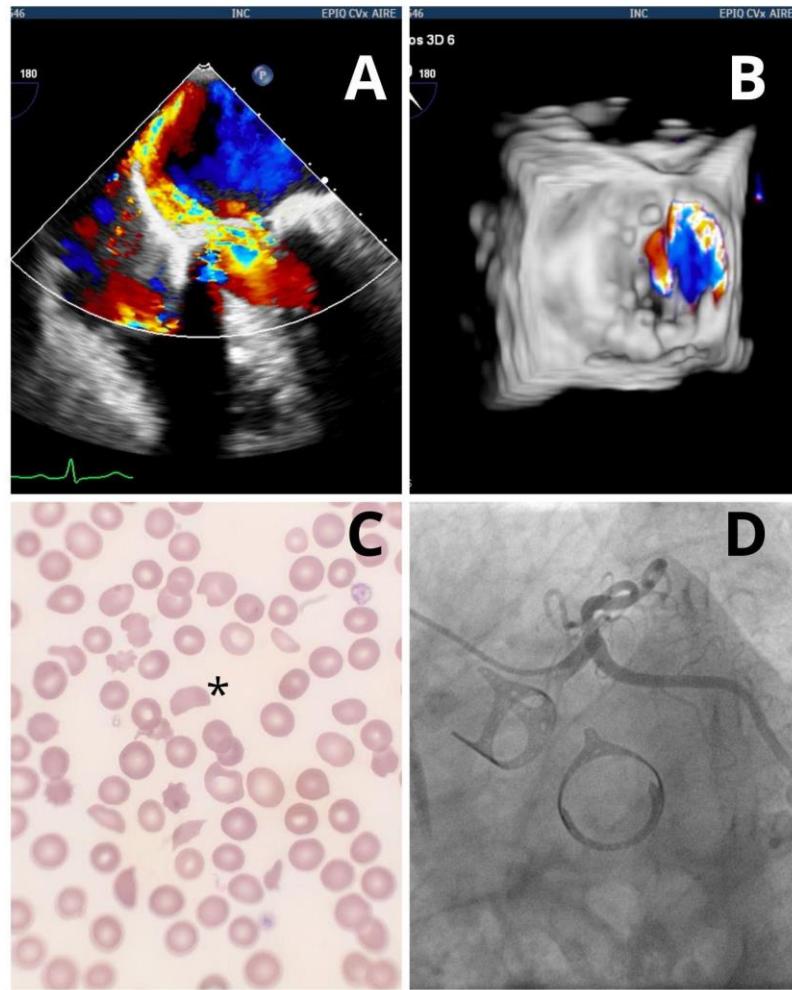


Figure 1: A) Transesophageal echocardiogram with severe mitral regurgitation, B) reconstruction of severe mitral regurgitation, C) Peripheral smear with schistocytes * D) angiography with mitral and aortic bioprosthetic.

