



# **MEXICO CITY**

OCTOBER 7 - 8, 2016

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# Evolving Concepts in Non-ST Elevation ACS (NSTE-ACS)

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### Case presentation

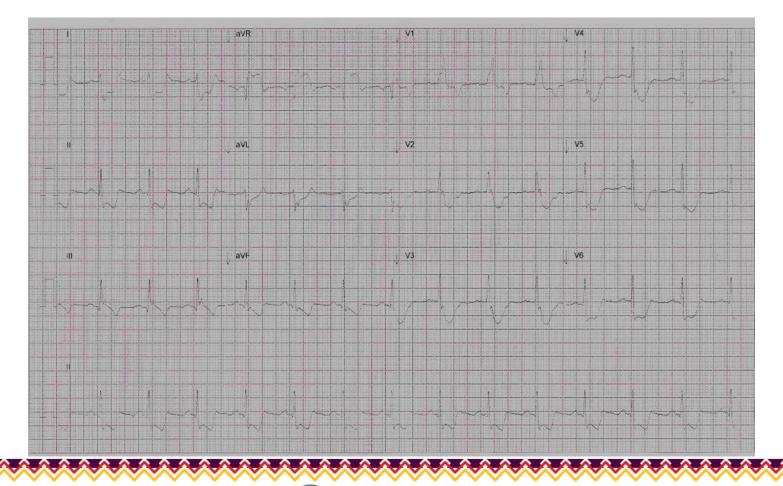
- » 61 years old female, HTN and dyslipidemia
- » Chest pain 2 hours ago while being in rest
- » No HF at presentation with normal cardiac biomarkers and RBBB on ECG
- » UA, GRACE 88, TIMI 1, CRUSADE 38



#### **Treatment**

- ASA: 300 mg loading dose
- Clopidogrel: 300 mg loading dose
- Isosorbide dinitrate: 5 mg SL
- Atorvastatin: 80 mg
- Enalapril: 10 mg bid
- Unfractioned heparin: 60U/Kg loading dose, 12U/Kg/hr infusion





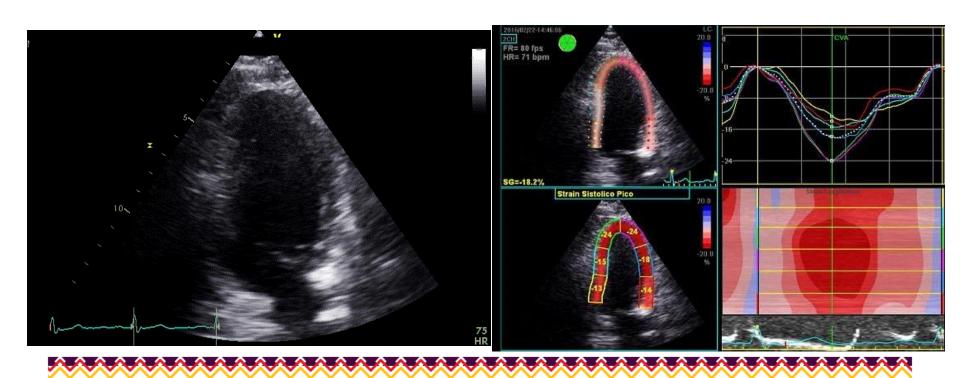


## Coronarography





# Echocardiography





#### **Treatment**

- Surgery:
  - IMA to LDA
  - LRA to first OM
  - ISV to first diagonal
  - ISV to PD



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Aspirin					
•	Non-enteric-coated aspirin to ${\it all}$ patients promptly after presentation	162 mg-325 mg	I	Α	(288-290)
•	Aspirin maintenance dose continued indefinitely	81 mg/d-325 mg/d*	I	Α	(288-290, 293,391)
P	2Y <sub>12</sub> inhibitors				
•	Clopidogrel loading dose followed by daily maintenance dose in patients unable to take aspirin	75 mg	I	В	(291)
•	P2Y <sub>12</sub> inhibitor, in addition to aspirin, for up to 12 mo for patients treated initially with either an early invasive or initial ischemia-guided strategy:  — Clopidogrel  — Ticagrelor*	300-mg or 600-mg loading dose, then 75 mg/d	ı	В	(289,292)
		180-mg loading dose, then 90 mg BID			(293,294)
•	P2Y <sub>12</sub> inhibitor therapy (clopidogrel, prasugrel, or ticagrelor) continued for at least 12 mo in post-PCI patients treated with coronary stents	N/A	I	В	(293,296,302, 330,331)
•	Ticagrelor in preference to clopidogrel for patients treated with an early invasive or ischemia-guided strategy	N/A	lla	В	(293,294)
2014 AHA/ACC Guideline for the Management of Patients With Non-ST Elevation Acute Coronary Syndromes					
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**Dosing and Special Considerations** 

COR

LOE

References

Recommendations

#### Parenteral anticoagulant and fibrinolytic therapy

in patients with early invasive strategy only

is performed

SC enoxaparin for duration of hospitalization or until PCI

Bivalirudin until diagnostic angiography or PCI is performed

	<ul> <li>Only provisional use of GP IIb/IIIa inhibitor in patients also treated with DAPT</li> </ul>			
<ul> <li>SC fondaparinux for the duration of hospitalization or until PCI is performed</li> </ul>	2.5 mg SC daily	I	В	(312-314)
<ul> <li>Administer additional anticoagulant with anti-IIa activity if PCI is performed while patient is on fondaparinux</li> </ul>	N/A	1	В	(313-315)
IV UFH for 48 h or until PCI is performed	<ul> <li>Initial loading dose 60 IU/kg (max 4,000 IU) with initial infusion 12 IU/kg/h (max 1,000 IU/ h)</li> <li>Adjusted to therapeutic aPTT range</li> </ul>	I	В	(316-322)
<ul> <li>IV fibrinolytic treatment not recommended in patients with NSTE-ACS</li> </ul>	N/A	III: Harm	Α	(93,329)

2014 AHA/ACC Guideline for the Management of Patients With Non-ST Elevation Acute Coronary Syndromes

• 1 mg/kg SC every 12 h (reduce dose to

Loading dose 0.10 mg/kg loading dose

1 mg/kg/d SC in patients with CrCl

Initial 30 mg IV loading dose

followed by 0.25 mg/kg/h

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<30 mL/min)

in selected patients

(133,136,309)

(292,293,

310,311)

Α

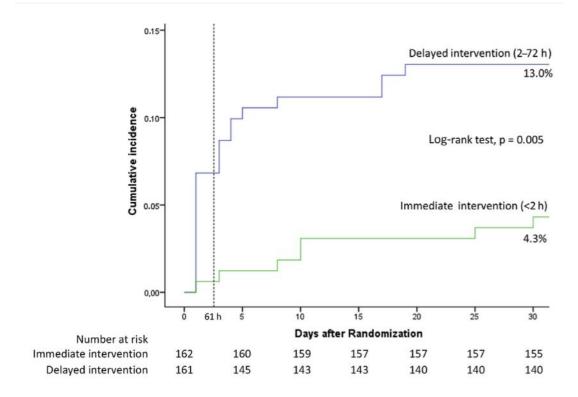
В

Immediate invasive	Refractory angina	
(within 2 h)	Signs or symptoms of HF or new or worsening mitral regurgitation	
	Hemodynamic instability  Recurrent angina or ischemia at rest or with low-level activities despite intensive medical therapy	
	Sustained VT or VF	
Ischemia-guided strategy	Low-risk score (e.g., TIMI [O or 1], GRACE [<109]) Low-risk Tn-negative female patients	
	Patient or clinician preference in the absence of high-risk features	

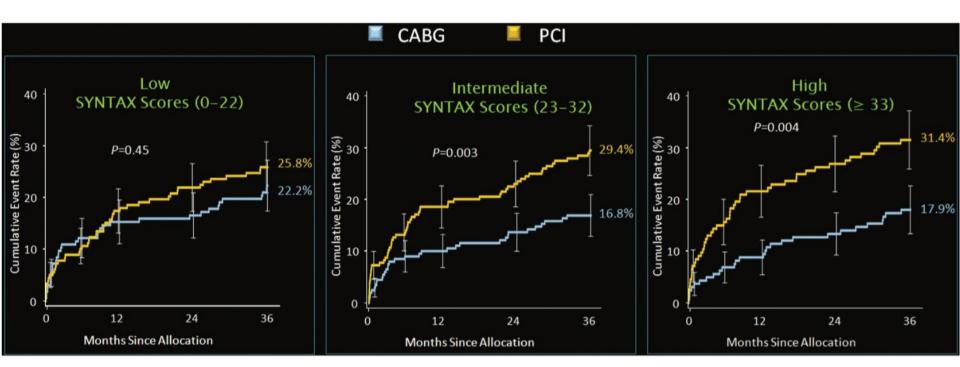
Early invasive (within 24 h)	None of the above, but GRACE risk score >140 Temporal change in Tn (Section 3.4)	
	New or presumably new ST depression	
Delayed invasive (within 25–72 h)	None of the above but diabetes mellitus Renal insufficiency (GFR <60 mL/min/1.73 m²)	
	Reduced LV systolic function (EF <0.40)	
	Early postinfarction angina	
	PCI within 6 mo	
	Prior CABG	
	GRACE risk score 109-140; TIMI score ≥2	

2014 AHA/ACC Guideline for the Management of Patients With Non-ST Elevation Acute Coronary Syndromes





Milosevic A, et al. Inmediate versus delayed invasive intervention for non STEMI patients. The RIDDLE NSTEMI styudy. JACC cardiovascular interventions, 2016



2011 ACCF/AHA Guideline for Coronary Artery Bypass Graft Surgery



#### Recommendation for Duration of DAPT in Patients With ACS Treated With CABG

COR	LOE	RECOMMENDATION
1	C-LD	In patients with ACS being treated with DAPT who undergo
		CABG, P2Y <sub>12</sub> inhibitor therapy should be resumed after CABG to complete 12 months of DAPT therapy after ACS (52–54,118–120).

2016 ACC/AHA Guideline Focused Update and Duration of Dual Antiplatelet Therapy in Patients With Coronary Artery Disease



#### Conclusions

- Patients with NSTE ACS have an increase risk of 3VD
- Sequential EKG and day by day risk stratification improves the identification of patients with higher risk
- Balloon angioplasty is an alternative treatment as a bridge for surgery

