Abstract No.   **1**
Category: **Acute Coronary Syndromes**
Title: **Accuracy of Segmentary contractility alteration in echocardiography for the diagnosis of coronary disease in the critically ill patient**
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Abstract:

Objective: Determine the diagnostic accuracy of segmentary contractility alteration (SCA) in echocardiography for atherosclerotic coronary artery disease using coronary angiography as a reference test amongst critically ill patients admitted to a polyvalent intensive care unit of a tertiary hospital in Colombia in 2018.

Methods: Study of diagnostic test accuracy that consecutively enrolled critically ill patients who developed hemodynamic instability. All patients underwent the index and reference test in the same hospital stay. SCA as an echocardiography finding was considered a positive result for the index test.

Results: 303 patients were consecutively enrolled in the study. Mean age was 63 years, 56% were male. 65% of participants had arterial hypertension. 29% of patients were obese. 70% were positive in a troponin test and 62% showed SCA in their echocardiogram with or without systolic dysfunction of left ventricle. Main diagnosis amongst patients were myocardial infarction (46%), cerebrovascular stroke (12,2%) and sepsis (12%). Patients with SCA had the same odds of having atherosclerotic coronary artery disease as those without SCA found by echocardiography. Sensitivity of the index was 69% and its specificity was 50%. Positive predictive value was 69% whilst negative predictive value was 50%. In this population resulted 1,4 times more likely to find significant atherosclerotic coronary artery disease in patients who were positive for SCA.

Conclusion: This study demonstrates that, in critically ill patients with or without coronary disease, positive findings of SCA in an echocardiography test are not useful to diagnose significant atherosclerotic coronary artery disease due to unacceptable accuracy, therefore normal echocardiography does not rule out the chance of significant atherosclerotic coronary artery disease.