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Acute Coronary Syndrome Requires (or Not) an Immediate Reperfusion Strategy: It Is Time to Change the Paradigm

LETTER TO THE EDITOR

To the Editor,

Cardiovascular disease is the leading cause of death worldwide, for both men and women. Within the spectrum of these diseases, coronary heart disease is in the first place for which we must continue working to reduce mortality from these pathologies.[1]

It is known that the classification of acute coronary syndromes with ST-segment elevation (STEMI) and without persistent ST-segment elevation (NSTE-ACS) not only represents an electrocardiographic difference but also allows us to guide the therapeutic strategy in these patients. While patients with STEMI require immediate revascularization therapy to save the myocardium at risk, NSTE-ACS patients generally require an initial strategy with antithrombotic drugs without the immediate requirement of a reperfusion strategy.[2,3]

Recently, Aslanger et al[4] have published a review where they state that, beyond STEMI, there are certain clinical characteristics in patients with NSTE-ACS that require and benefit from an immediate reperfusion strategy which is in accordance with other authors.[5]

Therefore, I consider that we should rethink a new classification of acute coronary syndrome based on whether they will require the reperfusion strategy, immediate or not, to facilitate not only the treatment of these patients but also to clarify the therapeutic decision of the professional who treats them.

In view of the above, I propose that acute coronary syndrome be classified as acute coronary syndrome that requires an immediate reperfusion strategy and acute coronary syndrome that does not require an immediate reperfusion strategy. The first group would include patients with acute coronary syndrome and at least one of the following conditions: (a) with persistent ST-segment elevation; (b) with new or presumed new complete left bundle branch block; (c) with ST-segment depression from V1 to V3 with high R in the same leads (expression of dorsal infarction, or more appropriately we should call it lateral infarction); (d) with J-point depression and upsloping ST depression in V1-V6 and continues to tall, positive symmetrical T-waves, often with 1-2 mm ST elevation in aVR (de Winter syndrome); (e) biphasic anterior T waves (Wellens sign A); (f) with tall, often asymmetrical, broad-based anterior T-waves often associated with reciprocal ST depression; (g) with J-point transitioning in a convex ST-segment (T-waves indistinguishable from ST-segment due to extreme ST deviation, "shark fin"); (h) no persistent ST-segment elevation at very high risk. In the group of patients with acute coronary syndrome that does not require immediate reperfusion strategy, patients with NSTE-ACS who are not included in the previous group would be included (Table 1).

Perhaps in this way, we can contribute to reducing the morbidity and mortality of acute coronary syndrome.

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Table 1. Proposed Classification for Acute Coronary Syndromes

Acute Coronary Syndrome That Requires an Immediate Reperfusion Strategy	Acute Coronary Syndrome That Does Not Require an Immediate Reperfusion Strategy
A) ST-segment elevation acute coronary syndrome	B) Acute coronary syndrome without persistent ST-segment elevation that is not included in the previous group
C) Acute coronary syndrome with new or presumed new left bundle branch block	
D) Acute coronary syndrome with ST depression from V1 to V3 with high R in the same leads (expression of dorsal infarction, or more appropriately we should call it lateral infarction)	
E) Acute coronary syndrome with J-point depression and upsloping ST depression in V1-V6 and continues to tall, positive symmetrical T-waves, often with 1-2 mm ST elevation in aVR (de Winter syndrome)	
F) Acute coronary syndrome with biphasic anterior T waves (Wellens sign A)	
G) Acute coronary syndrome with tall, often asymmetrical, broad-based anterior T-waves often associated with reciprocal ST depression	
H) Acute coronary syndrome with J-point transitioning in a convex ST-segment (T-waves indistinguishable from ST-segment due to extreme ST deviation, "shark fin")	
I) Acute coronary syndrome with no persistent ST-segment elevation at very high risk *	

*Very high risk: hemodynamic instability, cardiogenic shock, recurrent/refractory chest pain despite medical treatment, life-threatening arrhythmias, mechanical complication of myocardial infarction, acute heart failure clearly related to NSTE-ACS.
NSTE-ACS, acute coronary syndromes without persistent ST-segment elevation.

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