



Appropriateness of antiplatelet pretreatment in non-ST-segment elevation acute coronary syndrome: differences between unstable angina and acute myocardial infarction

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Objectives:

To evaluate the appropriateness of antiplatelet pretreatment in patients with non-ST-segment elevation acute coronary syndrome (NSTEMI-ACS). To determine whether the appropriateness differs between patients with unstable angina and those with acute myocardial infarction.

Materials and Methods:

This prospective observational single-center study (June 2021-February 2022) included patients with NSTEMI-ACS scheduled to undergo coronary angiography. This research has been approved by an ethical committee.

We designed an algorithm to classify pretreatment as appropriate or inappropriate according to the angiographic findings of coronary arteries. We used multivariate analyses to identify variables associated with appropriate pretreatment.

Results:

We included 172 consecutive patients with NSTEMI-ACS (mean age 68.7 years; initial diagnosis: unstable angina in 29,7%, non-ST-segment elevation myocardial infarction (NSTEMI) in 65,1%, others in 5,2%).

Antiplatelet pretreatment was administered in 76.6% of the patients and the time from pretreatment and coronary angiography was >24 h in 50,9% of patients.

Drug pretreatment was classified as appropriate in 70,2% of all patients, in 78,2% of those with NSTEMI and in 47,2% of those with unstable angina ($p < 0,05$).

Conclusions:

Antiplatelet pretreatment was appropriate in most patients with NSTEMI, but in less than half of those with unstable angina, suggesting a high rate of diagnostic error in unstable angina. Selecting appropriately the patients who really need pretreatment might avoid unnecessary drug side effects, invasive angiography as well as reduce hospital admissions and costs.



Age	68,7	Chronic antithrombotic therapy		Time from P2Y ₁₂ inhibitor loading dose to coronary angiography	
Gender (female)	24,4%	- None	41,9%	- <24 h	49,1%
Active smoking	21,5%	- SAPT	30,8%	- >24h	50,9%
Hypertension	72,7%	- DAPT	16,3%	Aspirin	100%
Diabetes Mellitus	39,5%	- OAC	8,1%	Loading dose P2Y ₁₂ inhibitor	
Dyslipidemia	69,8%	- OAC+SAPT	2,9%	- None	23,4%
CKD	23,8%	- Crussade score	31,9	- Clopidogrel 300 mgs	12,3%
Atrial Fibrillation/flutter	16,3%	- Grace score	111,9	- Clopidogrel 600 mgs	15,2%
Chronic coronary artery disease	37,2%	Coronary angiography indication		- Ticagrelor 180 mgs	49,1%
PCI	30,2%	- Unstable angina	29,7%	Tirofiban during PCI	10%
CABG	7%	- NSTEMI	65,1%		
Ejection Fraction		- Others (Tako-Tsubo syndrome, myocarditis...)	5,3%		
- >50%	77,3%	Coronary angiography acces			
- 40-49%	14%	- Radial	96,5%		
- <40%	8,7%				

Table 1

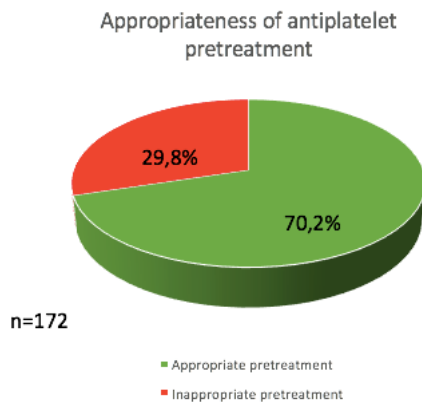


Figure 1

Appropriateness pretreatment differences between UA and NSTEMI

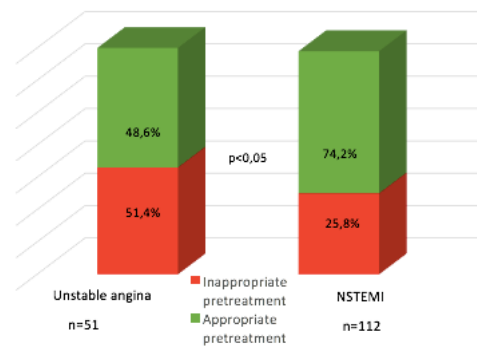


Figure 2