



Safety of antiplatelet pretreatment in non-ST-segment elevation acute coronary syndrome

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Objectives:

To determine the incidence of bleeding in patients with non-ST-segment elevation acute coronary syndrome (NST-ACS) after antiplatelet pretreatment.

To determine the percentages of patients diagnosed with acute aortic syndrome, pulmonary embolism, or stroke after pretreatment for initially misdiagnosed NST-ACS.

To analyze delays in coronary-artery bypass grafts (CABG) in relation to pretreatment.

Materials and Methods:

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

Bleeding risk was assessed with ARC-HBR score. Patients were monitored in hospital for bleeding (TIMI and ISHT) criteria, acute aortic syndrome, pulmonary embolism, and stroke. We analyzed indications for emergency CABG and delays related to pretreatment.

We used logistic regression to identify variables associated with bleeding.

Results:

We included 172 consecutive patients (mean age, 68.7 years). All received proton-pump inhibitors; 76,6% received antiplatelet pretreatment. Radial artery access was used for coronary angiography in 96,5%. Criteria for high bleeding risk were met by 39%.

No major bleeding occurred. Only 4 (2,3%) patients had minor bleeding; all 4 had high bleeding risk, and 3 were undergoing treatment for cancer.

Bleeding events were associated with high bleeding risk, active cancer, and low hemoglobin at admission ($p < 0,05$).

No cases of acute aortic syndrome, pulmonary embolism, or stroke were observed. CABG was necessary in 11 (6.4%) patients, none of whom required emergency surgery. Pretreatment did not delay CABG in any patients.

Conclusions:

Pretreatment was safe and did not delay CABG. No cases were misdiagnosed as acute aortic syndrome, pulmonary embolism, or stroke.



Age	68,7
Gender (female)	24,4%
Active smoking	21,5%
Hypertension	72,7%
Diabetes Mellitus	39,5%
Dyslipidemia	69,8%
CKD	23,8%
Atrial Fibrillation/flutter	16,3%
Chronic coronary artery disease	37,2%
PCI	30,2%
CABG	7%
Ejection Fraction	
- >50%	77,3%
- 40-49%	14%
- <40%	8,7%

Chronic antithrombotic therapy	
- None	41,9%
- SAPT	30,8%
- DAPT	16,3%
- OAC	8,1%
- OAC+SAPT	2,9%
- Crussade score	31,9
- Grace score	111,9
Coronary angiography indication	
- Unstable angina	29,7%
- NSTEMI	65,1%
- Others (Tako-Tsubo syndrome, myocarditis...)	5,3%
Coronary angiography acces	
- Radial	96,5%

Time from P2Y ₁₂ inhibitor loading dose to coronary angiography	
- <24 h	49,1%
- >24h	50,9%
Aspirin	100%
Loading dose P2Y ₁₂ inhibitor	
- None	23,4%
- Clopidogrel 300 mgs	12,3%
- Clopidogrel 600 mgs	15,2%
- Ticagrelor 180 mgs	49,1%
Tirofiban during PCI	10%

Table 1