INDICATIONS AND CLINICAL OUTCOMES OFUSINGTRIPLE ANTITHROMBOTIC THERAPY IN PATIENTSWITH ACUTE CORONARY SYNDROME

Ahmed Mahmoud El Amrawy, Gihan Magdy Youssef, Amr Mahmoud Sanaa ElDeen Zaky, Mohamed Mostafa Mohamed Abdellatif Elsakhawy
Department of Cardiology and Angiology, Faculty of Medicine, University of Alexandria.

INTRODUCTION

An acute coronary syndrome (ACS) is a potentially life-threatening condition that occurs most commonly when transient or permanent thrombotic occlusion of the coronary vasculature results in myocardial ischaemia and/or infarction.
Approximately 6–8% of patients undergoing PCI have an indication for long-term oral anticoagulants (OACs) due to various conditions such as AF, mechanical heart valves, or venous thromboembolism. Compared with oral anticoagulation therapy alone, the addition of DAPT to OAC therapy results in at least a two- to threefold increase in bleeding complications. Therefore, these patients should be considered at high risk of bleeding, and the indication for OAC should be reassessed and treatment continued only if a compelling indication exists.

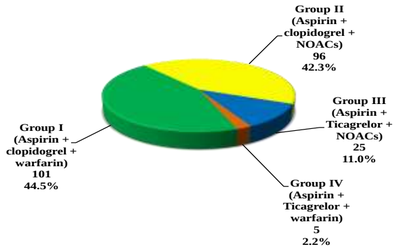
AIM OF THE WORK

The aim of the study was to detect the main indications, protocols, combinations and outcomes of patients taking triple antithrombotic therapy (dual antiplatelets and oral anticoagulants) presenting to Alexandria main university hospitals with acute coronary syndrome.

SUBJECTS AND METHODS

This is an observational prospective cohort study of patients presenting with acute coronary syndrome and have indications to receive oral anticoagulant therapy (**triple antithrombotic therapy)** at Alexandria Main University Hospital for 1 year between March 2022 and February 2023. We Followed up our patients after 1, 3 and 6 months and we compared between the four study groups regarding major cardiovascular events and this included mortality whether related to (cardiovascular or non-cardiovascular death),stroke, myocardial infarction, revascularization, In-stent thrombosis, heart failure and bleeding complications whether (major or minor bleeding). Our study enrolled 227 patients who were further divided into four groups:

Group I: included 101 patients, treated with (Aspirin + clopidogrel + warfarin)
Group II : included 96 patients, treated with (Aspirin + clopidogrel + NOACs)
Group III :included 25 patients, treated with (Aspirin + Ticagrelor + NOACs)
Group IV :included 5 patients, treated with (Aspirin + Ticagrelor + warfarin



RESULTS

Table1: Comparison between the four studied groups according to all-cause mortality, stroke, myocardial infarction, Revascularization, In-stent thrombosis, heart failure and bleeding either minor or major

During the first 6 months follow-up	Total (n = 227)		Group I (n = 101)		Group II (n = 96)		Group III (n = 25)		Group IV (n = 5)		χ^2	MCp
	No.	%	No.	%	No.	%	No.	%	No.	%		
All-cause mortality	12	5.2%	4	4%	3	3.1%	2	8%	0	0.0%	1.798	0.617
Stroke	7	3%	3	3%	2	2%	1	4%	1	20%	5.124	0.163
Myocardial infarction	7	3%	4	4%	2	2%	1	4%	0	0.0%	0.636	0.892
Revascularization	23	10%	11	11%	11	11%	1	4%	0	0.0%	4.63	0.202
In-stent thrombosis	5	2.2%	3	3%	1	1%	1	4%	0	0.0%	1.336	0.718
Heart failure	14	6.1%	7	7%	5	5.2%	2	8%	0	0.0%	0.666	0.884
Major bleeding	13	5.7%	6	6%	3	3%	3	12%	1	20%	4.559	0.206
Minor bleeding (non-fatal)	17	7.5%	9	9%	5	5%	2	8%	1	20%	2.240	0.524
All bleeding risk	30	13.2%	15	14.9%	8	8.3%	5	20.0%	2	40.0%	5.545	0.136

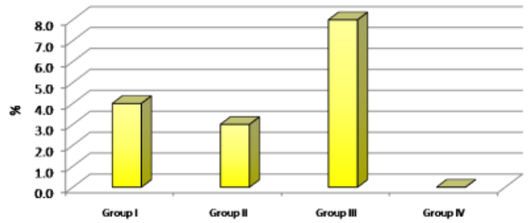


Figure 1: Comparison between the four study groups according to all-cause mortality during the first 6 months follow-up

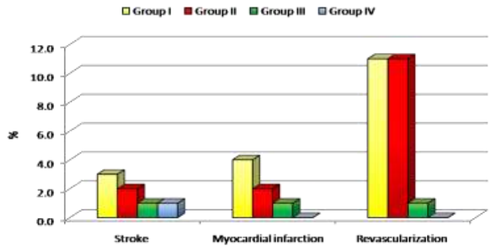


Figure 2: Summary of the total stroke, myocardial infarction and revascularization after the first 6 months of follow up between the four study groups

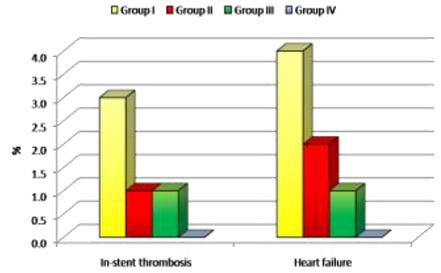


Figure 3: Summary of the total in-stent thrombosis and heart failure after the first 6 months of follow up between the four study groups

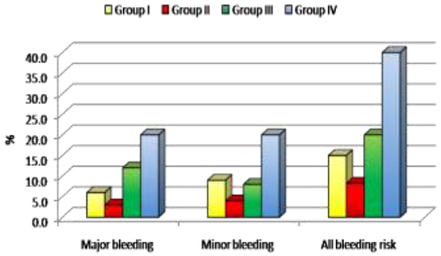


Figure 4: Summary of the total major, minor and total bleeding after the first 6 months of follow up between the four study groups

CONCLUSION

In a real-world registry of acute coronary syndrome patients who had an indication fortriple antithrombotic therapy, we noticed that the differences between bleeding rates among patients on varying oral anticoagulants were not significant and, we noticed increased number of total bleeding eventsin patients who received warfarin compared to NOACs. However, not statistically significant different. Regarding major cardiovascular events (MACE), there was no statistically significant difference between the four antithrombotic strategies.

FACULTY OF MEDICINE