36.1.5 - Antiplatelet Drugs

Impact of dual antiplatelet non-adherence after percutaneous coronary intervention in patients with or without history of myocardial infarction

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INTRODUCTION: In patients with myocardial infarction (MI) predisposition to atherothrombosis may persist for years, and prolonged DAPT could be beneficial in these high-risk group. Similarly, premature dual antiplatelet therapy (DAPT) cessation seems to increase the risk of adverse events after percutaneous coronary intervention (PCI). If DAPT non-adherence could have an enhanced impact on prognosis in patients with prior MI is still an uncharted territory.

METHODS: in this prospective, observational, multicentre registry we enrolled all patients undergoing PCI with stent implantation in 15 clinical sites in USA and Europe and discharged with DAPT. Prespecified categories for DAPT cessation included physician recommended discontinuation, brief interruption (for surgery), or disruption (non-compliance or because of bleeding). Using Cox models with time-varying covariates, we examined the effect of DAPT cessation on major adverse cardiac events (MACE, primary endpoint, composite of cardiac death, definite or probable stent thrombosis, myocardial infarction, or target-lesion revascularization), its single components, and if patients with prior MI had different rate of DAPT cessation or MACE.

RESULTS: patients with prior MI (n = 1214; 24.2%) presented more often with cardiovascular risk factors compared to patients without prior MI (n = 3804, 75.8%). Interruption rate was similar among the two groups. Patients with prior MI had lower rate of any DAPT discontinuation and disruption compared to patients without prior MI. This notwithstanding, patients with prior MI had increased 2-year rates of MACE (adjusted hazard ratio 1.41, 95% confidence interval 1.20 - 1.67) and its single components (with the exception of definite or probable stent thrombosis), irrespective of DAPT non-adherence (p interaction= 0.983).

CONCLUSION: in this real world cohort of patients undergoing PCI with stent implantation, patients with prior MI, despite lower rate of DAPT non-adherence, had worse prognosis than patients without prior MI. New antithrombotic strategies are needed to improve the bleeding/ischemic trade-off in patients with prior MI and their outcome after PCI.