S19_6

Monitoring Platelet Function in Patients with Myocardial Infarction Treated with Prasugrel and Referred for Urgent Coronary Bypass Surgery

Katia Orvin[1], Ran Kornowski[1], Leor Perl[1], Pablo Codner[1], Erez Sharoni[2], Eitan Snir[2], Eli I. Lev[1]

[1]*Cardiology, Rabin Medical Center, Israel*

[2]*thoracic Surgery, Rabin Medical Center, Israel*

Background:

Prasugrel is a 3rdgeneration potent theinopyridine indicated for treatment of ST-elevation and non-ST elevation myocardial infarction (MI) according to current guidelines. However, some of the patients may require urgent or emergent coronary artery bypass grafting surgery (CABG) following pre-treatment with prasugrel and coronary angiography. Although current Guidelines recommend discontinuing prasugrel at least 7 days before surgery, there is limited data regarding platelet function recovery in these patients. We, therefore, aimed to monitor platelet reactivity in patients with MI pre-treated with prasugrel and referred for urgent CABG.

Methods:

We included all patients with MI treated with prasugrel (60 mg loading dose) and referred for urgent CABG in theRabinMedicalCenter. Platelet function was measured at several intervals after discontinuation of prasugrel and prior to surgery, using the VeryfyNow P2Y12 assay. Timing of surgery was determined by the surgeons according to the platelet function testing and clinical considerations.

Results:

A total of 10 patients (age 61±10.1, 88.9% men) underwent platelet function testing following treatment with prasugrel. Mean platelet function results in relation to time from discontinuation of prasugrel are presented in the graph. Surgery was performed within 7 ±2 days from prasugrel discontinuation. During and after surgery 5 patients (50%) required blood products (packed cells, plasma and platelets). No major bleeding events were recorded except for one patient who required urgent reoperation, multiple blood products and eventually died.

Conclusions:

From these preliminary results it appears that after 5-6 days from discontinuation of prasugrel platelet function largely recovers. Monitoring platelet function recovery in patients pre-treated with prasugrel and referred for CABG, may contribute to decision making regarding the safe timing of surgery in these patients.