ABSTRACT

Background: In the TARGET study, sub-optimal platelet inhibition with tirofiban was responsible for higher incidence of peri-procedural complication compared to abciximab. To overcome the suboptimal platelet inhibition induced by tirofiban in the first hour after a percutaneous coronary interventions, a new regimen 25 μg/kg bolus followed by an infusion of 0.15 μg/kg/min has been proposed.

Objective: To determine safety and efficacy of the new bolus dose of tirofiban as well as its effect on myocardial perfusion and in modifying the inflammatory markers

Methods: A total of 30 patients with recent STEMI undergoing primary PCI were alternatively randomized to high bolus dose (HBD) tirofiban (25 μg/Kg over 3 min and infusion of 0.15 μg/kg/min for 24-48 hs) or conventional dose (10 μg/kg over 3 min, and infusion of 0.15 μg/kg/min for 24-48 hrs) and followed by:

- The first sum of ST segment elevation in millimeters was obtained immediately before PCI and 60 min after intervention, the difference between the two measurements was taken as resolution of ST segment which either > 50% or < 50% resolution.
- hs-CRP level at day one, discharge and 30 days.
- Patients was followed for 30 days for incidence of MACE, bleeding complications or site access complications.

Results: Thirty pts (mean age 52±9.8, 28 Males, 2 Females) with comparable risk factors between both groups.

- Incidence of ST segment resolution >50% was 80% and 53% in HBD and conventional dose groups respectively (P value 0.25).
- hs CRP levels decreased significantly in both groups at 30 days but it was more significant in HBD group than the conventional dose (P values 0.007 and 0.03) respectively.
- Cumulative incidence of angiographic complications was 7% and 47%in HBD and conventional dose respectively (P value 0.013).
- No incidence of major bleeding nor SAC in both groups while minor bleeding occurs in one patient of each group. Incidence of 30 day MACE was 13% in each group.

Conclusion: The use of a HBD of tirofiban in patient undergoing 1ry PCI is ssafe and associated with reduced rate of angiographic complications also had better effect on preserving micro-vascular perfusion and higher anti-inflammatory effect.

Key words:Tirofiban, Primary PCI, hs-CRP