

## ABSTRACT

**Background:** The presence of multi-vessel disease has been found to be associated with worse prognosis in patients with STEMI. <sup>(14)</sup> Identification of optimal strategies for treating these patients is the subject of considerable interest and controversy.

**Objective:** To compare in-hospital, long-term outcomes and LV EF ( 6 months) between complete revascularization (CR) and culprit - only revascularization (COR) in STEMI patients with MVD undergoing p-PCI.

**Methods:** A total of 40 patients with recent STEMI and MVD undergoing p-PCI were alternatively randomized to CR (group A) or COR (group B) during p-PCI and followed for 6 months for completion of PCI in group B after 1 month. Patients were followed for incidence of MACE (in-hospital, at 1&6 months), CIN and EF improvement at 6 months.

**Results:** Forty pts (mean age  $55.2 \pm 9.1$  years, 33 Males, 7 Females) with comparable risk factors between both groups.

- In gp. A, LV EF improved significantly after 6 months [  $54.3 \pm 9.1$  to  $58.4 \pm 6.2$  ( P value 0.002)] compared to gp. B [  $54.9 \pm 5.2$  to  $55.7 \pm 6.7$  (P value 0.55)]. This improvement was more observed in patients with anterior wall myocardial infarctions.
- Incidence of MACE in both groups was comparable during hospital stay and at 1and 6 months follow up. Two cases in group B, while no MACE in group A at 1 and 6 months follow up ( P value 0.14).
- Safety of aggressive strategy for complete revascularization is comparable for culprit- only strategy as regard incidence of CIN [2 cases in gp. A, while 1 case in gp. B ( P value 0.54)] and Vascular complications [no cases in gp. B, while only one case in gp. A ( P value 0. 31)].
- Patients with Door to balloon time less than 90 minutes are associated with better EF in comparison to more than 90 minutes ( $57.1 \pm 6.3$  versus  $50.5 \pm 7.3$  P value 0.005)

**Conclusion:** complete revascularization is safe during p-PCI and associated with better LV EF at 6 months especially in anterior MI.

**Key words:** *Complete revascularization, Culprit-only revascularization, Primary PCI, MACE*