

Abstract

Objective. To compare clinical outcomes of pharmacoinvasive (PI) strategy versus primary percutaneous coronary intervention (PPCI) in patients with AMI (acute myocardial infarction) still needs more evaluation.

Methods. This is a single centre, retrospective, non-randomized study comparing the two treatment strategies. A total of 3073 consecutive AMI cases were identified between 2015 and 2019.

Results. The pharmacoinvasive strategy group comprised of 18.5 % (n = 569) and primary PCI group comprised of 81.5 % (n = 2504) patients. The patients in PI group were younger, their mean age was 54.8 \pm 12 years vs 56.4 \pm 11.5 years (P < 0.003) in PPCI group. Arabic speakers were 47.1 % vs 40.9 % (P < 0.000), South Asians 25.3 % vs 30.2 % (P < 0.018), smokers 39.9 % vs 31.5 % (P < 0.000) and anterior MI was 55 % vs 54 % (P < 0.000) in PI vs PPCI group respectively. Transradial approach was utilized in 84.4 % in PI vs 75.4 % (P < 0.000) in PPCI group. Median door to balloon time (calculated from arrival to our hospital emergency till establishment of TIMI III flow in the culprit vessel) in PPCI group was 92 minutes. In-hospital mortality tended to be higher in PPCI vs PI as 3.6 % vs 1.9 % (P < 0.049). LV ejection fraction was observed to be higher in PI group i-e 42.2 \pm 11 % vs 40.5 \pm 11 % (P < 0.000) in PPCI group.

Conclusion. Pharmacoinvasive strategy has almost equal efficacy as compared with primary PCI and it represents a reasonable, non-inferior alternative when primary PCI is not readily available especially in patients presenting early after symptom onset.

Keywords: Pharmacoinvasive strategy, Primary Percutaneous Coronary Intervention, Acute Myocardial Infarction, ST-Elevation Myocardial Infarction, Thrombolysis in Myocardial Infarction, Left Ventricle.