

## **5- Ticagrelor Versus Clopidogrel in ST Segment elevation Myocardial infarction Patients Candidate for primary percutaneous Coronary Intervention.**

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### **Ticagrelor Versus Clopidogrel in ST Segment Elevation Myocardial Infarction Patients Candidate for Primary Percutaneous Coronary Intervention**

**Objective:** To evaluate the incidence rate of definite stent thrombosis and major adverse cardiovascular events (MACE)

with Ticagrelor versus Clopidogrel in ST segment elevation myocardial infarction (STEMI) patients candidate for primary percutaneous coronary intervention (PCI).

**Methods:** STEMI participants naive to antiplatelets, with no history of coronary artery disease (CAD) and candidate for primary PCI were included, while participants with history of CAD were excluded. Two hundred consecutive participants were selected, divided into 2 groups of 100 participants each, received either Ticagrelor or Clopidogrel, and followed up at 3 and 6 months.

**Results:** The percent of patients in the Ticagrelor group who developed definite stent thrombosis (in-hospital and total) was 0%, while the percent of patients in the Clopidogrel group who developed definite stent thrombosis (in-hospital and total) was 8% and 9%, respectively. There were statistically significant weak associations between the class of P2Y12 platelet inhibitors and definite stent thrombosis (in-hospital and total) ( $X^2 = 8.33$ ,  $P = .004$ ,  $V = 0.204$  and  $X^2 = 9.424$ ,  $P = .002$ ,  $V = 0.217$ , respectively). The percent of patients in the Ticagrelor and Clopidogrel groups who developed in-hospital MACE was 1% and 9%, respectively. There was a statistically weak significant association between the class of P2Y12 platelet inhibitors and in-hospital MACE ( $X^2 = 6.74$ ,  $P = .009$ ,  $V = 0.184$ ).

**Conclusion:** Ticagrelor is more efficacious than Clopidogrel in preventing definite stent thrombosis (in-hospital and total) and in-hospital MACE in STEMI patients.

#### **Keywords**

Acute STEMI, Clopidogrel, primary percutaneous coronary intervention, stent thrombosis, Ticagrelor