TIMING AND CLINICAL SETTING OF CARDIOVASCULAR DEATH OR MYOCARDIAL INFARCTION FOLLOWING PCI FOR ACS - OBSERVATIONS FROM THE TRITON-TIMI 38 TRIAL

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Background: Pts undergoing PCI for ACS receive dual anti-platelet therapy to prevent procedurally related complications as well as new spontaneous CV events. We examined effect of more potent antiplatelet therapy according to timing and clinical setting of CVD/MI.

Methods: 12,844 pts with ACS in TRITON-TIMI 38 who received >=1 stent were randomized to prasugrel v. clopidogrel. CVD/MI were categorized as stent thrombosis (ST) related (definite or probable by ARC definitions), peri-procedural (related to PCI/ CABG), or spontaneous (non-ST or procedural related). Median f/u was 14.5 months.

Results: Overall, there were 1306 CVD/MI events of which 186 (14%) were ST, 606 (46%) procedural, and 514 (40%) spontaneous. Among the 846 events (65%) that occurred within the 1st 30d, 126 (14.9%) were ST related, 584 (69.0%) procedural, and 136 (16.1%) spontaneous. After 30d, 63 (13.5%) were ST related, 22(4.7%) were procedural, and 383 (81.2%) were spontaneous. Overall, prasugrel reduced the incidence of CVD/MI in each clinical scenario (Figure), though the effects tended to be greatest among ST-related event.

Conclusion: More potent dual-platelet inhibition directly reduces complications from PCI of the culprit lesions in addition to indirectly preventing de-novo atherothrombotic events. In patients undergoing PCI post-ACS, most cases of CVD/MI occur within the 1st 30d are ST and procedural-related, while spontaneous CVD/MI predominates in the later phase. Prasugrel reduces CVD/MI in all settings.