COMPARISON OF THE EFFICACY AND SAFETY OF EVEROLIMUS-, SIROLIMUS- AND ZOTAROLIMUS-ELUTING STENTS IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION

i2 Poster Contributions
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Background: Drug-eluting stents (DESs) seem to be non-inferior to bare metal stents in terms of clinical outcomes in patients with ST-segment elevation myocardial infarction (STEMI). We compared the efficacy and safety of everolimus-eluting stents (EESs), sirolimus-eluting stents (SESs), and zotarolimus-eluting stents (ZESs) in primary intervention for STEMI.

Methods: A total of 354 consecutive patients with STEMI who received EES (n = 100), SES (n = 186), or ZES (n = 68) were analyzed. The primary end point was 1-year composite rate of major adverse cardiac events (defined as death, MI, or ischemia-driven target vessel revascularization). Secondary end points included the individual components of the primary end point, late loss, angiographic restenosis, and stent thrombosis.

Results: Baseline clinical characteristics were similar between the three groups. In-segment late loss (p = 0.002) and restenosis rate (p = 0.032) at 8 months were lowest in the EES group compared to the SES and ZES groups. At 12 months, cumulative incidence rates of primary endpoints in the EES, SES, and ZES groups were 8.0%, 13.4%, and 14.7%, respectively (p = 0.313). There were 1 acute (in the ZES group), 2 subacute (1 in the SES and 1 in the ZES group), and 2 late (in the SES group) stent thromboses.

Conclusions: The EES showed similar rates of mortality and of major adverse cardiac events, with lower rates of angiographic restenosis for patients with STEMI compared with SES and ZES.

![Graph showing late lumen loss and binary restenosis for the EES, SES, and ZES groups.](image-url)