

## Coronary intervention

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### NEW-GENERATION DRUG-ELUTING STENTS IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: A PROPENSITY SCORE MATCHED ANALYSIS

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**Objectives** This study was aimed to compare everolimus-eluting stents (EES) with zotarolimus-eluting stents (ZES) in patients with acute myocardial infarction (AMI).

**Background** There is a paucity of data to exclusively evaluate the safety and efficacy of second-generation drug-eluting stents (DESs) in the setting of AMI.

**Methods** The present study enrolled 3309 AMI patients treated with ZES (n=1608) or EES (n=1701) in a large-scale, prospective, multicenter Korea Acute Myocardial Infarction Registry (KAMIR). Propensity score matching was applied to adjust for differences in baseline clinical and angiographic characteristics, producing a total of 2646 patients (1343 receiving ZES, and 1343 receiving EES). Target lesion failure (TLF) was defined as the composite of cardiac

death, recurrent nonfatal myocardial infarction (Re-MI), or target lesion revascularisation (TLR). Major clinical outcomes at 1 year were compared between the two propensity score matched groups.

**Results** After propensity score matching, baseline clinical and angiographic characteristics were similar between the two groups. Clinical outcomes of the propensity score matched patients showed that despite similar incidences of Re-MI, in-hospital and 1-year mortality, patients in the EES group had significantly lower rates of TLF (6.5% vs 8.7%,  $p=0.029$ ), and probable or definite stent thrombosis (0.3% vs 1.6%,  $p<0.001$ ) as compared with those in the ZES group. Furthermore, there was a numerically lower rate of TLR (1.2% vs 2.2%,  $p=0.51$ ) in the EES group than in the ZES group.

**Conclusions** In this propensity-matched comparison, EES appears to be superior to ZES in reducing TLF and stent thrombosis in patients with AMI.