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Long-term outcome after drug eluting stenting in patients with ST-segment Elevation Myocardial Infarction Data from the REAL Registry.

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BACKGROUND: The long-term safety and efficacy of drug eluting stents (DES) implanted during primary percutaneous coronary intervention (PCI) for ST-segment elevation myocardial infarction (STEMI) is unclear. The purpose of this study was to compare the long-term outcome of STEMI patients undergoing primary PCI with DES vs. bare metal stent (BMS) implantation.
METHODS: In the present analysis 4764 patients were enrolled (706, 15%, received DES). We assessed the cumulative incidence of major adverse cardiac events (MACE) and stent thrombosis (ST).
RESULTS: Overall, no significant difference emerged for the rates of death and reinfarction. DES implantation was associated to a reduction of target vessel revascularization (TVR) (HR 0.65, 95%CI 0.47-0.91; p=0.01), leading to a MACE reduction (HR 0.7, 95%CI 0.56-0.86; p<0.01). In particular, during the first 2 years we observed less adverse events in the DES group, mainly because of a lower TVR rate (TVR: HR 0.56, 95%CI 0.37-0.83, p<0.01; MACE: HR 0.71, 95%CI 0.54-0.94, p=0.01). On the contrary, during the third year, adverse events tended to be higher in the DES group. ST did not differ between DES and BMS groups (p=0.6). No differences were observed between sirolimus eluting stents and paclitaxel eluting stents.
CONCLUSIONS: DES implantation during primary PCI is safe and associated with a significant TVR and MACE reduction in the first two years, whereas a trend to have more adverse events in the third year is observed. More data about long-term follow-up are needed to better evaluate both safety and efficacy of DES in the setting of STEMI.