Cardiovasc Drugs Ther. 2006 Feb;20(1):63-8.

Safety and long-term efficacy of sirolimus eluting stent in ST-elevation acute myocardial infarction: the REAL (Registro REgionale AngiopLastiche Emilia-Romagna) registry.

Percoco G, Manari A, Guastaroba P, Campo G, Guiducci V, Aurier E, Sangiorgio P, Passerini F, Geraci G, Piovaccari G, Naldi M, Saia F, Marzocchi A; Real Investigators.

BACKGROUND: Limited data are available for sirolimus eluting stent (SES) implantation in patients with ST-segment elevation myocardial infarction (STEMI).
AIM: To confirm the safety and effectiveness of SES in patients with STEMI in a real-world scenario (multicentric registry).
METHODS: From July 2002 to June 2004, clinical and angiographic data of 1617 patients with STEMI treated with primary percutaneous coronary intervention (PCI) have been collected. Patients were prospectively followed for the occurrence of major adverse cardiac events (MACE): death, reinfarction and target vessel revascularization (TVR).
RESULTS: Overall, 205 patients received SES (12.5%, SES group) and 1412 received bare metal stent (87.5%, BMS group) in the infarct related artery. Compared with the BMS group, SES patients were younger, had more often diabetes mellitus, anterior localization and less cardiogenic shock at admission. The angiographic characteristics in the SES group showed longer lesions and smaller diameter of vessels. After a median follow-up of 396 days, there was no significant difference in the rate of stent thrombosis (1% in the SES group vs 1.5% in the BMS group, p=ns). The incidence of MACE was significantly lower in the SES group compared to BMS group (HR 0.62 [95% CI: 0.4-0.95]; p=0.03), principally due to the lower rate of TVR (HR 0.41 [95% CI: 0.2-0.85]; p=0.01).
CONCLUSIONS:Utilization of SES in the setting of primary PCI for STEMI, in our "real world" registry, was safe and improved the 1-year clinical outcome compared to BMS reducing the need of TVR.