Original Article

Three-Year Outcomes of Biodegradable Polymer-Coated Ultra-Thin (60 µm) Sirolimus-Eluting Stents in Real-World Clinical Practice

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Abstract

Introduction: Although drug-eluting stents (DES) have outclassed the use of bare metal stents, the safety and efficacy of DES at long-term follow-up has still been conflicting because of increased occurrence of late or very late restenosis and stent thrombosis after DES implantation. Hence, the present study was aimed to evaluate the 3-year safety and clinical performance of biodegradable polymer-coated ultra-thin (60 µm) sirolimus-eluting stent (SES) in real-world patients with coronary artery disease (CAD). Materials and Methods: This was a physician-initiated, retrospective, single-centre, observational study that included 237 consecutive patients who had previously undergone implantation of only Supraflex SES (Sahajanand Medical Technologies Pvt Ltd, Surat, India) for the treatment of CAD. Follow-up was received after 1 year and 3 years of stent implantation. The primary endpoint was major adverse cardiac events (MACE), a composite of cardiac death, myocardial infarction (MI) and target lesion revascularisation (TLR). Stent thrombosis was considered as a safety endpoint. Results: The mean age of patients was 64.1 ± 10.2 years, and 192 (81.0%) patients were male. The average stent length and diameter were 24.4 ± 9.0 mm and 3.1 ± 0.4 mm, respectively. The cumulative MACE rate at 3 years follow-up was 6.5% which included 4 (1.8%) cardiac deaths, 6 (2.8%) MI, and 4 (1.8%) TLR. There were 2 (0.9%) cases of stent thrombosis. Conclusion: Treatment of patients with CAD in real-world clinical practice was associated with sustained clinical safety and low rates of restenosis, stent thrombosis and MACE up to 3 years after Supraflex SES implantation.

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