Multicentre clinical outcomes of hybrid tapered sirolimus-eluting coronary stent system with biodegradable polymer in long diffuse de novo coronary artery lesions

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THEME: Coronary Interventions

TOPIC(S): Stents and scaffolds

AIMS
Tapering of coronary arteries is a major challenge observed with long coronary lesions. This study was conducted to investigate the safety and performance of BioMime? Morph tapered sirolimus-eluting coronary stent system (Meril Life Sciences, Pvt. Ltd., Vapi, India) with an ultra-thin cobalt-chromium platform and a biodegradable polymer in real-world long de novo coronary artery lesions.

METHODS AND RESULTS
This was a retrospective, non-randomised, multi-centre study conducted in 362 patients with long diffuse coronary artery lesions who were implanted with BioMime Morph. The major clinical end-point was major adverse cardiac events (MACE), which is a composite of cardiac death, myocardial infarction (MI), ischemia driven-target lesion revascularization (ID-TLR) at 30-day, and 6-month follow-up period. The mean age of patients was 61.09 ± 9.04 years with signs and symptoms of stable angina, unstable angina, STEMI or NSTEMI. Out of 362 patients, 170 (46.9%) were diabetics and 159 (43.9%) had hypertension. A total of 627 lesions were intervened successfully with 402 stents (1.11 stent per patient). The incidence of MACE was 1 (0.29%) and 4 (1.19%) at 30-day and 6-month follow-up respectively. There was 1 (0.30%) case of MI and ID-TLR, and 2 (0.59%) cases of cardiac death were reported at 6-month follow-up. In addition, 1 (0.30%) patients presented acute stent thrombosis.

CONCLUSIONS
The BioMime Morph tapered coronary stent system demonstrated the safety and performance in real-world patients with long diffuse de novo coronary artery lesions.