Initial experience with the novel BioMime Morph 40-60 mm long sirolimus-eluting tapered stent in long coronary lesions

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AIMS
Aims: Long lesions treated with overlapping stents has been reported to be associated with healing problems and/or adverse events [1-2]. The novel BioMime Morph (Meril Life Sciences, India) is a 40, 50 and 60 mm long sirolimus-eluting cobalt chromium stent (65 µm strut thickness, biodegradable polymer) with a tapered design (0.5 mm taper from proximal to distal end) and is available in the following proximal and distal diameters (2.75-2.25 mm, 3-2.5 mm and 3.5-3 mm). It can be a novel alternative for treatment of long coronary lesions, overcoming the limitations of overlapping stents.

METHODS AND RESULTS
Methods: Data was evaluated from our centre's prospective BioMime Morph database from August 2016 - September 2017. Primary endpoint was device oriented composite endpoint (DOCE: cardiac death, TV-MI, TLR and TVR). Secondary endpoints were technical (successful Morph implantation) and procedural success (successful procedure with Morph without in-hospital MACE). Results: 55 patients had BioMime Morph stents implanted, with mean follow up of 200 (+/-50) days. Mean age was 67 (+/-11) years, 70% were men. Co-morbidities included hypertension (57%), hypercholesterolemia (34%), diabetes mellitus (30%), PVD (2%), CVD (5%), CKD (13%), previous MI (22%), smoking (38%) and positive family history (15%). There was history of previous PCI in 15% and CABG in 6%. Indication for PCI was predominantly ACS (82% including 16% STEMI), 12% were CTOs. 89% of the procedures were performed via radial access using 5-6F sheath. Vessels treated included LAD (46%), Cx (10%) and RCA (44%). Pre-dilatation was performed in 95% including use of non-complaint balloons in 43%, scoring balloons in 15% and rotablation in 4%. Post-dilatation was performed in 100%. Buddy wire was used in 37% while a guideliner used in 10%. Technical and procedural success (secondary endpoint) were achieved in 100%. Cumulative DOCE (primary endpoint) was 3.6% (cardiac death 1.8%, TV-MI 1.8%, definitive ST 0%, possible ST 1.8%, TLR 1.8% and TVR 0%).

CONCLUSIONS