Relevant test results prior to catheterization. Nuclear stress test: Clinically positive for dyspnoea. Anterior ischaemia (3/17 segments). Inferior and infero-lateral ischaemia (4.5/17)

Relevant catheterization findings. Multivessel disease including :
- Long proximal left anterior descending artery stenosis
- Coronary aneurysm of the proximal circumflex with tight stenosis

[INTERVENTIONAL MANAGEMENT]

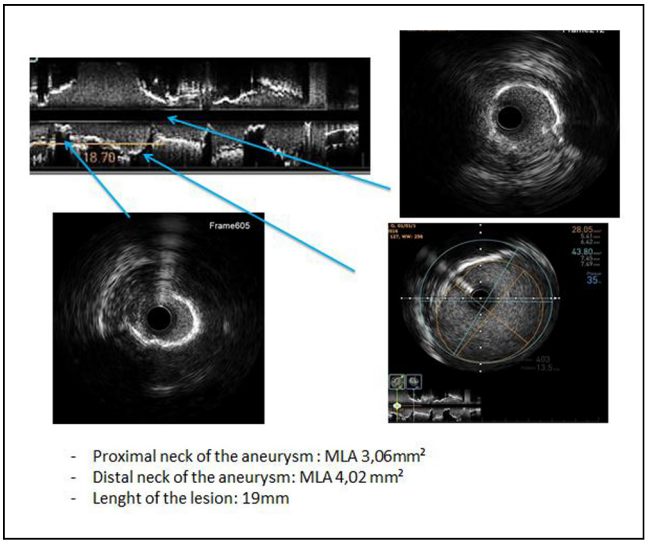
Procedural step. After the heart team discussion, we have decided to treat the patients by PCI.

Coronary computed tomography angiography was performed and showed a severe lesion in the proximal neck of the circumflex aneurysm. The length of the aneurysm was 15 mm and the diameter was 7 mm.

Using a 6 French sheath right radial approach, an EBU 3.75 cannulated the left main. A BMW wire crossed the LAD lesions. LAD lesions were treated with 2 drug eluting stents.

After that, a BMW wire crossed the circumflex lesions. IVUS was performed and confirmed the presence of a severe and huge calcified lesion at the proximal neck of the aneurysm, and a severe lesion at the distal neck of the aneurysm.

Balloon predilatation was performed. A covered stent (Begraft 3 x 21 mm) failed to cross the lesion. The guiding catheter EBU 3.75 was removed and an AL2 was used to cannulate the left main. Then, a guidezilla was introduced in the AL 2. With this increased back up, stents crossed the lesion. A covered stent was implanted to exclude the aneurysmal lesion. Then PCI was completed with a drug eluting stent in the proximal circumflex.



Case Summary. Management of coronary aneurysm is under debate. PCI of an aneurysmal coronary lesion is safe and feasible. Assessment of the lesion by CT-scan and IVUS is useful to determine precisely the anatomy and the length of the lesions.

Implantation of a covered stent needs a high backup with the guiding catheter due to the large profile of these devices.

TCTAP C-267

Tapered Stents in Long Diffusely Diseased Coronary Arteries - Our Experience

T.R. Raghu,[1] Jayashree Kharge[2]
[1]Sri Jayadeva Institute of Cardiovascular Sciences and Research, India; [2]Sri Jayadeva Institute of Cardiolovascular Sciences and Research, India

[CLINICAL INFORMATION]

Patient initials or identifier number. GMM

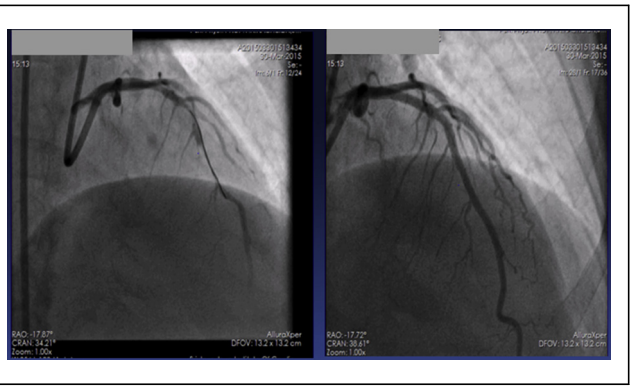
Relevant clinical history and physical exam. A 67 year-old gentleman with history of hypertension, presented with chest pain of one hour duration, with rapid deterioration to Cardiogenic Shock within a few minutes of admission. ECG showed normal sinus rhythm with ST-T changes suggestive of acuteischemia. ECHO showed concentric hypertrophy of the Left Ventricle (LV) with no regional hypokinesia and adequate LV function.

Relevant test results prior to catheterization. Haemogram, Renal Function Test and Serum Electrolytes were within normal limits. The serology for HIV, HBsAg, HCV, and VDRL were also negative.

Relevant catheterization findings. Coronary Angiogram revealed a long segment lesion in the left anterior descending artery (LAD) from proximal to mid segment with stenosis from 80%- 90%. The Right Coronary Artery and the Left Circumflex were both normal.

[INTERVENTIONAL MANAGEMENT]

Procedural step. The LAD was cannulated with a 6Fr EBU catheter. A 0.014″ Whisper XT was the chosen guide wire to cross the lesion. The LAD was diffusely diseased with diameter from the proximal to the distal LAD tapering from 3 mm to 2.5 mm. Therefore we chose to use an a 3-2.5 x 60 mm BioMime Morph Stent. After adequately dilating the vessel, we deployed the stent at 10 atm pr. The stent post-dilated with 3 x 12 mm non-compliant balloon at 15-18 atm pr. TIMI 3 flow was established with well apposed stent as confirmed by the stent-boost.The stent morphed into the LAD did not alter the vessel anatomy, was haemodymaically stable and asymptomatic.



Case Summary. At follow-up, 2 years after the index procedure, the patient is absolutely comfortable and asymtomatic.

The branching coronary arteries tend to taper and thus anatomically designed tapered stents may prove to be better in terms of stent conform ability without altering the vessel anatomy. Long diffused lesions can be better treated with single long stents to minimize binary re stenosis and associated adverse events. They are also convenient from procedural perspective and are economical.We have used these long tapered stents in over forty patients with follow up over two years. we recommend the availabilty of these stents in the treatment armamentarium since long diffuse lesions are not uncommon.