

Heart, Lung and Circulation (2014) xx, 1–2
1443-9506/04/\$36.00
<http://dx.doi.org/10.1016/j.hlc.2014.10.005>

Capping Spontaneous Coronary Artery Dissection with Overlapping Bioabsorbable Scaffolds

G. Sengottuvelu, MD, DM, FSCAI, FRCP^{*}, Ravindran Rajendran, MD, DM, Debdatta Majumdar, MD, DM

Department of Cardiology, Apollo Hospital, Chennai - 600006, India

Received 13 September 2014; accepted 14 October 2014; online published-ahead-of-print xxx

Keywords

Spontaneous coronary artery dissection • Bio-absorbable stents • Vascular scaffolds • OCT
• Overlapping BVS • Ostial BVS

Spontaneous coronary artery dissections (SCAD) have a high natural tendency for healing and require only temporary scaffolding in symptomatic patients. Bio absorbable vascular scaffolds, because of their property to dissolve over time, are an attractive option for SCAD as it avoids a permanent metallic jacket. We present a case of long segment atherosclerotic SCAD involving ostio-proximal right coronary artery (RCA) managed using overlapping scaffolds under optical coherence tomography (OCT) guidance.

A 55 year-old diabetic male patient with history of effort angina had a coronary angiogram (Fig. 1A & video 1) which showed linear filling defects suggestive of dissection involving the proximal and mid RCA with TIMI III flow. OCT

showed two flaps 30 mm apart in the proximal RCA with the proximal flap 10 mm from the ostium (Fig. 1B). The OCT images also show evidence of intimal thickening and plaques suggestive of atherosclerosis. A distal landing zone was selected at 43 mm from the ostium and was treated using a 3X28 mm and a 3X18 mm Absorb scaffolds (Abbott Vascular, Santa Clara, CA, USA). The distal was deployed first followed by proximal scaffold with minimal overlap and aortic protrusion that was flared (Fig. 1C & Video 2). Post bioabsorbable vascular scaffold (BVS) OCT run showed good ostial coverage and malappositions near the overlap segment that were corrected by high pressure post dilation (Fig. 1D).

^{*}Corresponding author. Cardiology Department, Apollo Hospital, 21, Greaves Lane, Off Greaves Road, Chennai - 600006, India. Tel.: +91 9841430999. fax: +91 44 28294429, Email: drsgeng@gmail.com

© 2014 Published by Elsevier Inc on behalf of Australian and New Zealand Society of Cardiac and Thoracic Surgeons (ANZSCTS) and the Cardiac Society of Australia and New Zealand (CSANZ).

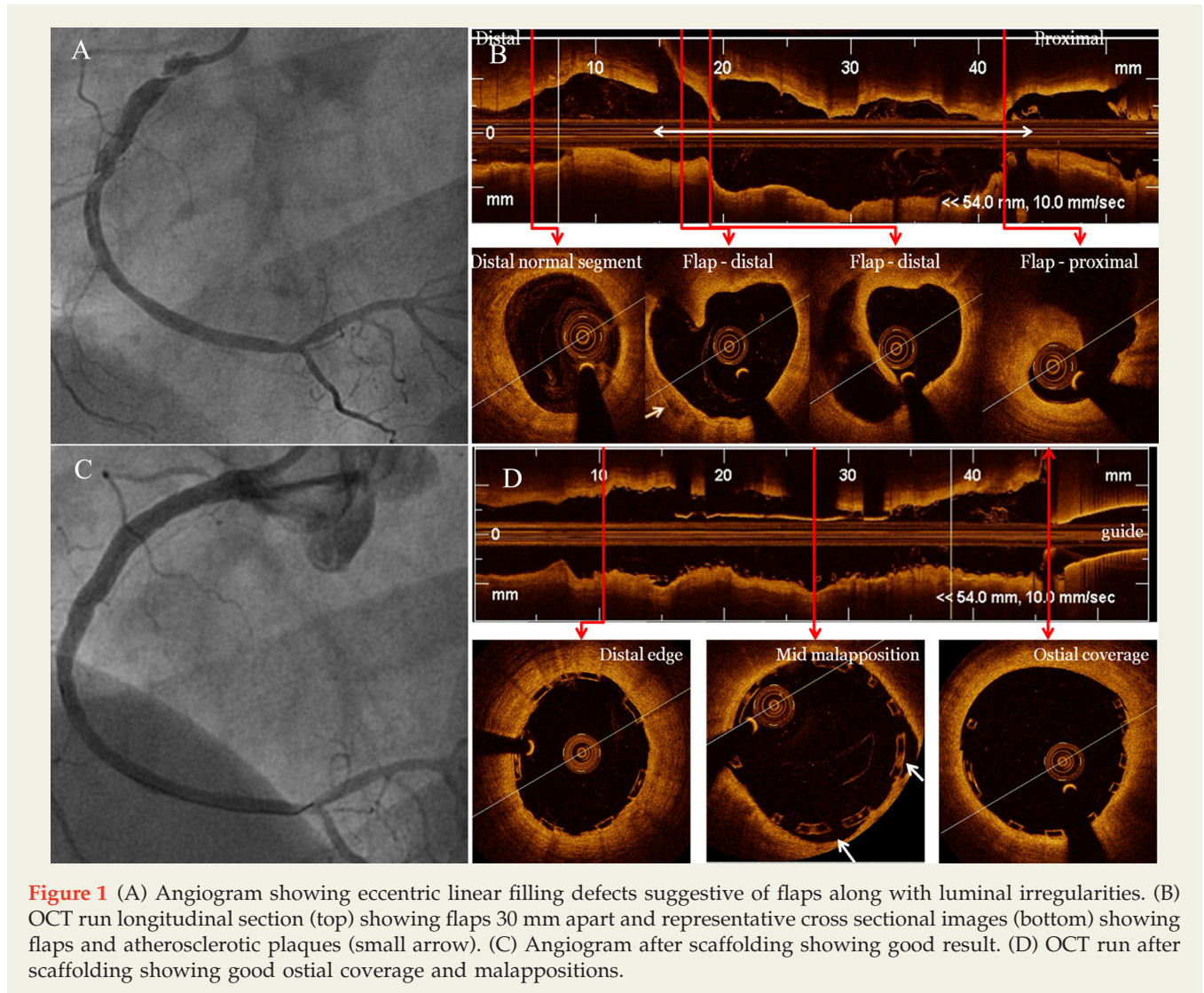


Figure 1 (A) Angiogram showing eccentric linear filling defects suggestive of flaps along with luminal irregularities. (B) OCT run longitudinal section (top) showing flaps 30 mm apart and representative cross sectional images (bottom) showing flaps and atherosclerotic plaques (small arrow). (C) Angiogram after scaffolding showing good result. (D) OCT run after scaffolding showing good ostial coverage and malappositions.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.hlc.2014.10.005>.