**Case Summary.** The use of the imaging modality of OCT was very useful in:

1. Assessing the diameter and length of the stent used in the previous angioplasty, which was not available with the patient. This was imperative in deciding the dimensions of the stent to be used in the ISR segment.
2. Treating the Malposition at the ectatic segment which was present even after conventional post dilatation with angio-guided Non compliant balloon. The use of OCT was again an eye opener and it enabled up sizing of the balloon dimension and achieving good apposition subsequently.
3. Tackling the dilemma of the angiographic haziness being a thrombus or tissue prolapsed. The use of OCT enabled lesion specific treatment to be given with the best result.

**TCTAP C-152**

**OCT and FFR Guided Rota Stenting of Diffusely Calcified Vessel with ISR of LAD, Rota of D1 and Simultaneous Left ICA Stenting**

Sridhar Kasturi

'Sunshine Heart Institute, India

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**[CLINICAL INFORMATION]**

**Patient initials or identifier number.** DSPS

**Relevant clinical history and physical exam.** 59 Years old male known Hypertensive, Diabetic presented with NSTEMI, anterior wall Myocardial infarction, ECG-NSR, ST depression V2-V4, 2D Echo-RWMA observed, severe LV dysfunction, Ejection Fraction-33 percent

**Relevant test results prior to catheterization.** Relevant catheterization findings

CAG- LMCA-Normal, LAD-Diffuse long segment calcified disease of proximal to distal LAD with ISR, D1-100% Occluded, D2-Proximal long segment 70% lesion, LCX-Non dominant, Distal 90% Lesion, RCA-Dominant, Proximal 100% Occluded, Distal vessel filling retrogradely, Carotid angiogram- left internal carotid artery-80-90% lesion. Patient underwent PCI with stenting of LAD and PDA 10 years back.
[INTERVENTIONAL MANAGEMENT]

Procedural step. LMCA engaged with 6Fr XB 3.5 Guiding catheter which revealed Diffuse long segment calcified disease of proximal to distal LAD with ISR. FFR done to LAD, Base line FFR value is 0.75 and after Inj. NTG FFR value is 0.61 (Significant LAD disease). Pre procedure OCT study (Optical Coherence Tomography) showed minimal lumen area 1.8 sq mm with 90% thick calcific plaque, Vessel size is 2.5 mm in distal vessel. Then XB 3.5 7Fr Guiding catheter taken from Right Femoral Approach. LAD crossed with 0.014”BMW Elite wire with Fine cross micro catheter support and BMW Elite wire exchange with 0.009 x 300cm Rota floppy wire. Rota performed with 1.5mm Rota Link Plus and D2 Rota performed with 1.25mm but, predilatation done with 2.0x12mm Trek, 2.5x15mm NC Trek balloons. Mid to distal LAD stenting done with 2.25x30mm Resolute Integrity Stent (DES). Proximal LAD to mid LAD overlapping Stenting done with 3.0x34mm Resolute Integrity Stent (DES). Post Stenting OCT study showed malposition in proximal LAD Stent, post dilatation done with 2.5x12mm, 3.0x 5mm NC trek balloons. The final result was good with TIMI III Flow and No Complications. Patient was discharged in a stable status on 4th post procedure day without any CV Symptoms, neurological deficit.

Case Summary. PTA with stenting of ICA and Complex PCI can be done during same admission with less mortality and morbidity. Initially PTA of ICA was done to avoid peri procedure CVA. Diffusely diseased calcified LAD and a large Diagonal branch was treated with OCT guided ROTA stenting of LAD and Rotablation of Diagonal branch. Interventional treatment can be done with less morbidity and mortality when patient comes under high risk for surgical procedure/unwilling of surgical procedure.