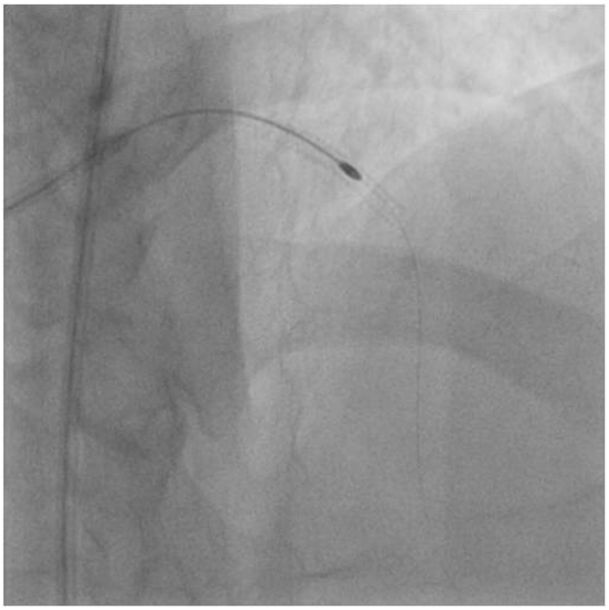

Case Summary. ISR of LAD due to neoatheroscleorosis associated with calcification which can be treated with IVUS guided ROTA stenting.

IVUS was used for optimization of PCI to get the best possible short term and long term results.

DK-Crush stenting of LMCA was done due to better long termresults in the DK-Crush study.

Synergy stents was used due to favorable data from recentlyr-eported studies.

TCTAP C-185

The Role of Optical Coherence Tomography in Decision Making During the Acute Phase of Spontaneous Coronary Artery Dissection

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[CLINICAL INFORMATION]

Patient initials or identifier number. TB

Relevant clinical history and physical exam. A 69 year-old woman with a history of treated hypertension, presented with sudden onset chest pain, at rest, and evidence of ST-segment elevation in the inferior leads of a 12-lead electrocardiogram. Thus, urgent coronary angiography was performed.

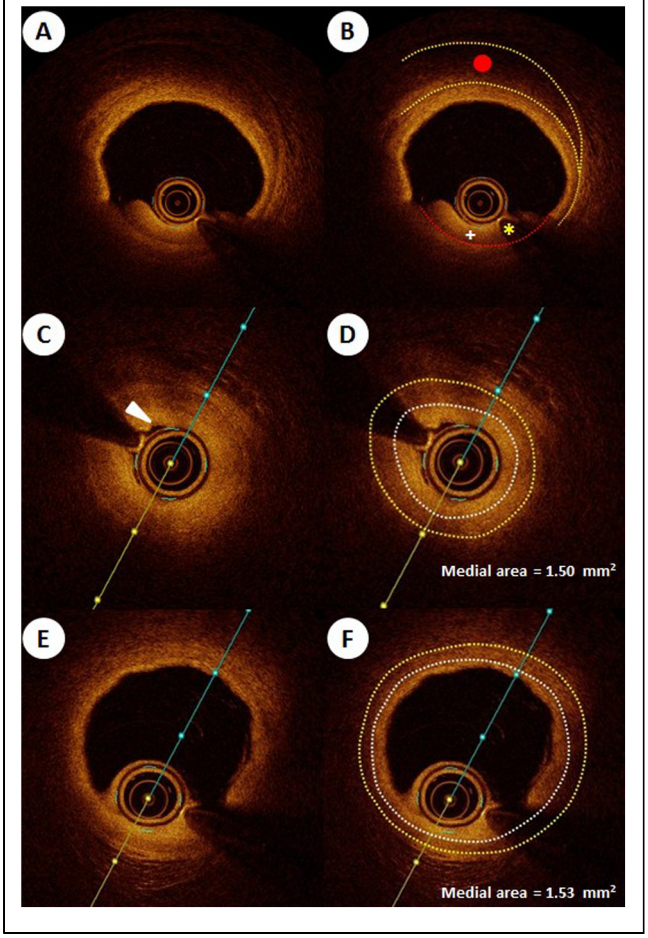
Relevant test results prior to catheterization.

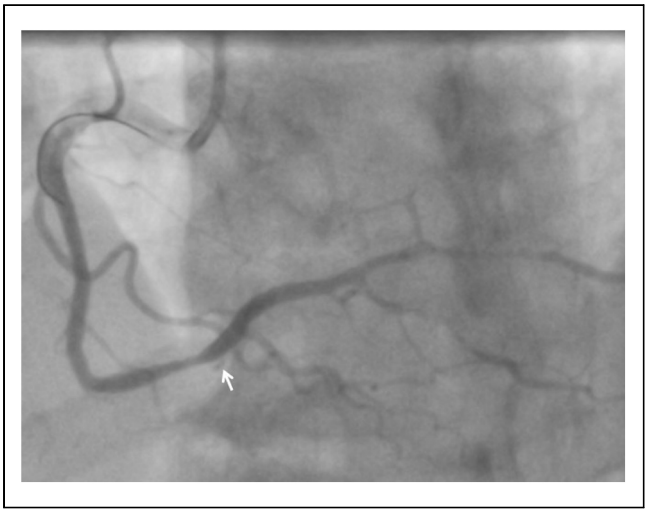
Relevant catheterization findings. Urgent coronary angiography demonstrated a normal left coronary system but an abrupt lumen calibre reduction extending from segment 2 of the RCA into the PDA, with preserved TIMI-3 flow and the PL branch of the RCA was sub-totally occluded (file 1).

[INTERVENTIONAL MANAGEMENT]

Procedural step. We proceeded to evaluate the RCA with OCT. Imaging was challenging due to catheter-induced complete luminal occlusion and consequent difficulties clearing the imaging field of blood, however, dissection is observed at the level of the external elastic membrane with a low attenuation area observed behind the collapsed intima-media complex (file 2A and B). The collapsed intima-media complex may be misinterpreted as a 'diseased' segment but measurement of the medial area and comparison with a normal reference segment confirms equivalent areas and strengthens the diagnosis of intramural compression, particularly when observed in associated with luminal contour folding (file 2C-F).

The patient suffered a transient worsening of chest pain and ST-segment changes while the OCT catheter was distally occlusive. Interpretation of the angiographic and OCT findings suggested a diagnosis of spontaneous coronary artery dissection (SCAD) without intimal disruption and led us to take a relatively conservative strategy (POBA) of the mid and distal segments of the RCA to enhance distal flow. Angiographic assessment post-POBA, revealed evidence of an iatrogenic dissection in the mid vessel, with preserved TIMI-3 flow in all branches (file 3). At this time, the patient was hemodynamically stable and asymptomatic, therefore further intervention was avoided. Repeated angiography, on day 7, demonstrated improved luminal calibre in the affected segments and re-canalisation of PL branch (file 4).





Case Summary. Immediate angiographic assessment of patients presenting with STEMI has increased the interventional communities' awareness of non-atherosclerotic causes for myocardial injury. Furthermore,intravascular imaging, with optical coherence tomography (OCT), has facilitated the detection of spontaneous coronary artery dissection (SCAD), where angiographic assessment has previously been ambiguous. Detection of these atypical aetiologies facilitates acute, patient-tailored, therapy and may guide further risk reduction. We present a case of SCAD confirmed by OCT and consider the impact of this diagnosis.

TCTAP C-186

Intravascular Ultrasound Guided Double Kiss Double Crush Stenting in Bifurcation with Long Term Follow-Up

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[CLINICAL INFORMATION]

Patient initials or identifier number. DG

Relevant clinical history and physical exam. A 64 years-old male history of hypertension, diabetics, presented with chest pain on physical exertion. He was a non smoker and with positive family history of ischemic heart disease. There was no prior history of myocardial infarction. On physical examination his body weight was 64 Kg with a BMI of 20, Pulse 60 beats/min. Blood Pressure 140 /90 mm Hg with no signs of heart failure. Chest was clear, heart sound was normal with no cardiac murmur.

Relevant test results prior to catheterization. ECG : Normal Sinus Rhythm
Echo - Concentric LVH, No RWMA. EF-69 %
TMT positive.
Hb : 14.1 gm/dl
FBS : 80 mg/dl
Creatinine : 1.0 mg/dl
LDL : 130 mg/dl
Triglyceride : 180 mg/dl
HDL : 30 mg/dl
HbA1C : 7.0

Relevant catheterization findings. Angiography reveled bifurcation lesion in LAD and D1. Good LV function. EF 69%. 90 TO 95 % stenosis in Proximal LAD. 70% stenosis in proximal segment of D1 and 90% of stenosis in mid segment of D1. LCx normal. Left main normal. RCA non dominant and normal.

[INTERVENTIONAL MANAGEMENT]

Procedural step. The 7F XB 3.5 guide was used. Both LAD and D1 were wired by using Run Through intermediate wire. LAD pre dilatation was done by using NC Trek 3 X 12 mm at 12 ATM and D1 was predilated with 2.75 X 12 mm NC Trek at 12 ATM. D1 stented with 2.75 x 30 mm Endeavor Resolute at 10 atm. POBA / 1st Crush was done by putting 3 x 12 mm NC balloon at LAD. D1 was re-crossed with the same wire. LAD was stented by using 3.5 x 38 mm Endeavor Resolute at 10 atm. Final Kiss was done by using 2.75 x 12 mm NC trek at D1 and 3 x 12 NC trek at LAD. POT was done by using 3.5 x 12 mm balloon in LAD. Further, stenting was done with 4 x 15 DES to the LMCA. IVUS pull back Atlantis Pro catheter (Boston Scientific 40 Mhz) study was performed from D1 to LAD and Distal LAD to LMCA.

Follow up was done after 6 months and angio showed patent stents in LAD, D1 and LMCA with no evidence of restenosis.