CASES

[Interventional Management]

Procedure:
- A 2.5 x 20 mm balloon dilated the occlusion site at 10 atm, but IVUS failed to cross the lesion. A 2.25 x 20 mm Trek balloon dilated from proximal PDA back to mid-RCA at 8 to 16 atm but an Xience Prime stent 2.25 x 23 mm failed to cross the mid-RCA. We used 6F Guide Limer to improve support but the whole system was pushed out, re-engaged AL1 and re-inserted Fielder FC to PDA. An NC Quantum balloon 3.0 x 20 mm dilated the mid-RCA at 16 atm to get full expansion of the balloon, IVUS showed the diameter of distal RCA was 2.5-3.0 mm and 3.0-3.5 mm at mid-RCA and 3.5-4.5 mm at proximal RCA, large hematoma was noted at distal to mid-RCA, 360 degree heavy calcification of mid-RCA noted. An Xience Prime stent 2.25 x 13 mm was deployed at proximal PDA to distal RCA at 10 atm and the balloon dilated RCA at 10-16 atm from distal back to mid-RCA. An Xience Prime stent 2.75 x 33 failed to cross the mid-RCA and the whole system was pushed out, a 3.0 x 20 mm NC Quantum balloon dilated mid-RCA at 12-16 atm. An Xience Prime stent 2.75 x 33 mm crossed the lesion and was deployed at distal to mid-RCA with distal overlapping at 16 atm and the balloon dilated mid-RCA at 16 atm. An Xience Prime stent 3.0 x 23 mm failed to cross the mid-RCA and the whole system was pushed out, we re-engaged AL1 and re-inserted Fielder FC wire. We introduced a Choice PT extrasupport wire to distal RCA as buddy wires and an Xience Prime stent 3.0 x 23 mm crossed the lesion and was deployed at 16 atm with distal overlapping. An Xience Prime stent 3.5 x 38 mm was inserted and Fielder wire was removed and the stent was deployed at mid-to proximal RCA at 16 atm with distal overlapping, post dilated the distal RCA stent with 3.0 x 23 mm balloon at 12 atm and mid-RCA stent at max 16 atm. Post dilated the mid-to proximal RCA with NC Quantum balloon 4.0 x 20 mm at 16 atm. Type B dissection was noted at very proximal RCA and an Xience Prime stent 4.0 x 8 mm was deployed at 16 atm. Final angiographic results was optimal, PL branch has limited flow but it was small with collaterals, therefore, we stopped the procedure.

Case Summary:
A 56-year-old gentleman suffered from intermittent chest tightness. He had risk factor of hypertension. Physical examination was normal. He received a thallium-201 myocardial perfusion scan that demonstrated inferolateral myocardial ischemia. He underwent coronary angiography on June 2013 and it showed luminal irregularity of LAD, septal branches provided collaterals to distal RCA, 80% stenosis of middle LCx and total occlusion at mid-RCA with collaterals from cornus branch to distal RCA. PCI with stenting to LCx was performed. On August 2013, the patient was admitted for RCA PCI. A 7F AL1 guide catheter was inserted through right femoral artery to engage right coronary ostium and a JL 4.0 5F diagnostic catheter was inserted through right radial artery to engage left coronary ostium as contralateral contrast injection. A Wizard 78 guidewire and a finecross catheter were used, the wire crossed the lesion and was advanced to PL branch. A 1.2-mm Emerge balloon dilated the occlusion site causing a large and long dissection from middle RCA to PL branch. The wire was successfully re-wired to PDA and the guide wire was changed to Fielder FC. IVUS examined RCA and showed diffuse dissection with large hematoma at middle to distal RCA and heavy calcification with dissection at occlusion site. After balloon predilatation, 5 drug-eluting stents were implanted from PDA back to ostial RCA. Angiographic result was optimal and IVUS examination showed good stents expansion and apposition. Conclusion: Long and large coronary dissection may carry a high risk of mortality and morbidity during coronary intervention. Avoid forceful contrast injection through guide catheter following balloon dilatation to the occluded lesion especially when the guide is tightly engaged. If a large coronary dissection is created, it is important not to perform contrast angiography until the dissection is secured by the stents implantation.

TCTAP C-114
A Case of Ostial CTO Treated with a “GAIA” Guidewire
Yoshiki Uehara
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[Clinical Information]
Patient initials or identifier number: Y. S.
[Interventional Management]

Procedural step:
- Target lesion: Seg.11 (an ostial LCX CTO with acute bend)
- Approach: right femoral
- Guiding catheters: 7Fr Launcher EBU3.75 (Medtronic)
- Microcatheter: Crusade (Kaneka), Corsair (Asahi)
- Guidewires: XT-R, Gaia First, SION blue (Asahi)
- Balloons: Mini Trek 2.0 mm (Abbott)
- Stents: Promus Element 2.25/16 mm, Promus Element 2.25/12 mm (Boston)
- IVUS: OptiCross (Boston)

A location of entry of the ostial LCX CTO was confirmed by IVUS examination. Then the operator tried to penetrate proximal cap of the CTO using an XT-R guidewire supported with a Crusade double-lumen microcatheter. However, the XT-R was unable to advance into the CTO because the entry of the CTO had an acute bend. Next, the guidewire was exchanged for a Gaia First guidewire, which was able to penetrate proximal cap and advanced to middle of the CTO. Then, after a Corsair microcatheter was delivered along with the guidewire, the Gaia First was replaced with the XT-R guidewire. Consequently, the XT-R reached distal true lumen. After predilatation, two Promus Element stents were delivered to the lesion using the balloon anchor technique and successfully deployed to the CTO lesion.

Case Summary:
The Gaia guidewire is useful especially for an ostial CTO with an acute bend at entry.

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TCTAP C-115

Retrograde Chronic Total Occlusion via Ipsilateral Collaterals

Suma Malini Victor, Anand Gnanaraj

The Madras Medical Mission, India

[Clinical Information]

Patient initials or identifier number: Mr. S

Relevant clinical history and physical exam:
- 60 years old male gentleman, known diabetic, normotensive, history of effort dyspnea and angina class II x 6 months

Relevant test results prior to catheterization:
- ECG: Poor R Wave Progression in anterior leads
- ECHO: Severe LV dysfunction
- Thallium: Viable myocardium +

Relevant catheterization findings:
- CAG; RCA, LCX free of disease. RCA tortuous
- LAD ostial 100% lesion

[Interventional Management]

Procedural step:
- procedure done under local anaesthesia through right femoral approach attempts were made to cross the lesion antegrade failed lesion was crossed retrogradely from lcx collateral with fielder xt wire (fielder fc and bwm wires were used to get the 10 x 10 mm ow balloon) lesion was crossed antegrade with cross it 100 xt wire along the retrograde wire retrograde wire then removed and predilatations were done with 12 x 6 mm trek upto 14 atm for 10 sec and 25 x 15 mm trek up to 14 atm for 10 sec stent deployment was done to proximal lad using a 275 x 30 mm resolute integrity at 12 atm for 30 sec saba done with 35 x 8 mm nc voyager up to 18 atm for 10 sec mid lad lesion was dilated with 25 x 23 mm balloon up to 4 atm for 30 sec check angio showed no residual disease in the proximal lad with dissection at the mid lad with timi iii flow the procedure was uneventful patient shifted with stable hemodynamics