

M-CATH Microcatheter Excellent Control in CTO

Case Study n 5

Complex LAD stenting with rotational atherectomy

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Introduction

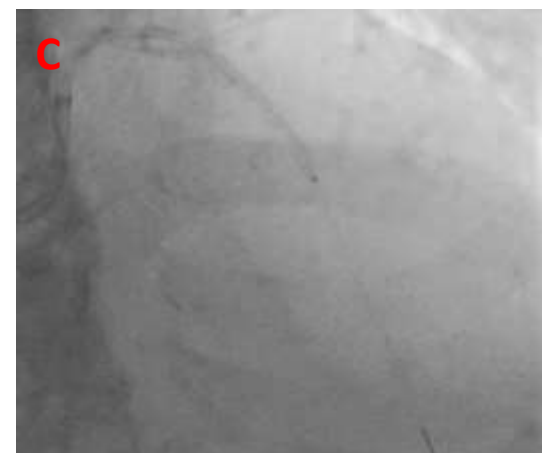
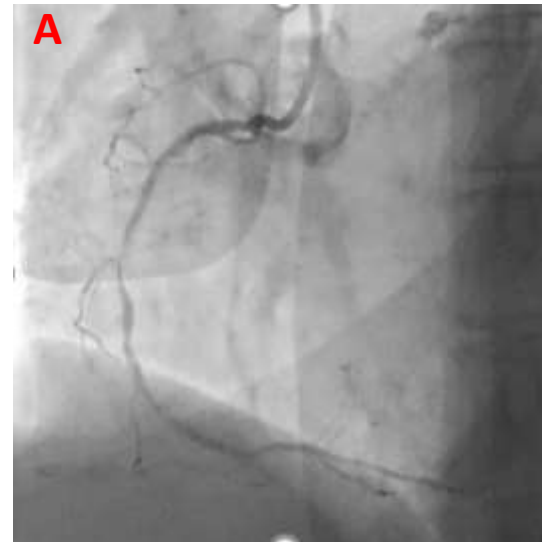
A 72 years old Caucasian female – a/w SOB. BG: HTN, T2DM, PVD, with a detected systolic heart failure with LVEF 21% discovered on September 2017, offloaded with IV diuresis and GDMT, Hb=104, creatinine=63, and e-GFR=38. She underwent a coronary angiogram in October 2017 via RFA. A 2VD – severe calcific mid LAD and mid RCA disease was found. Low dose DSE showed viable segments and contractile reserve with peak LVEF 43%. The case was discussed in JCC: the patient was considered not suitable for CABG because of frailty and PCI to RCA and LAD was staged.

Case Report

As the angiography showed a severe mid RCA disease (Fig.A), a PCI to mid RCA with DES was performed via LFA which had a severe CFA lesion, negotiated with a 5.5 Pigtail to enable passage of 6F ALO.75 (Fig. B)

Five days later, a PCI to LAD with Rotablation assisted was staged: RFA and LFA were the same as the ones used during previous angiography, RRA pulse was absent, so the decision was to use LRA.

LRA access was initially secured with a 6F Terumo glidesheath, then a 150 cm 0.038' J-tip wire passed into the LRA; a 7F femoral sheath was placed after the initial 6F RADIAL Glidesheath to enable 7F EBU 3.5 GC. Using mother-in-child technique, the 7F EBU was passed with 6F Pigtail up the LRA and into the aortic root: once there, the pigtail was removed and 6k heparin was given. A BMW was brought to distal LAD and a Finecross was chosen in order to exchange BMW to Rotafloppy wire. Finecross failed to cross the mid LAD lesion even after trying to predilate mid LAD with 1.0 mm sapphire balloon that burst (Fig. C).



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Finecross still did not cross so it was changed to Acrostak M-Cath catheter which went through easily (Fig. D) and then the BMW was changed to rota floppy wire. The vessel underwent 3 runs of Rotablation with 1.25 mm burr at 170,000 rpm and an improved flow post RA was obtained.

The BMW was then exchanged for the rota floppy wire using the M-Cath catheter again and m-LAD lesion was predilated with 2.0 mm and 2.5 mm NC balloon. Even though the balloons went easily into the distal LAD, the Guideliner was introduced in view of difficulty passing the stent Ultimaster DES 2.5x38 mm at 14 atm. While attempting to stent the distal lesion, the stent came off the balloon. The wire position was lost briefly with the loose stent within the stent for some time. Fortunately, we were able to rewire the lost stent with a fresh sion blue wire. A 1.0 mm Sapphire balloon was passed into the lost stent to push the stent down in position but failed. So we decided to deploy the stent within the previously deployed stent initially with 1.0 mm, then 1.5 mm, then 2.0 mm and finally 2.5 mm and 2.75 mm NC balloons.

Deep throating the Guideliner and then pre-dilating the lesion distal to the stented part with another NC balloon was performed. The strategy was to stent the distal part but we were unable to negotiate another 2.25x18 mm DES beyond the mid LAD bend despite multiple predilatations, deep guideliner position and using second PTCA wire as additional support. We decided to stop at this stage and the result was accepted with a stable patient and a TIMI3 flow in the vessel.

Conclusions

M-cath makes the difference in a very complex case because of its very low profile and its hard tip that allowed to cross the lesion and reach the distal part of the vessel where other microcatheters fail. It is also a very good device for exchanging guidewires since it makes it simple and efficient: features you need when you are treating a very complex case.

