

CTO recanalized by retrograde externalization

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Introduction

Patient was a 64-year-old man, with dyslipidaemia and mild hypertension. In February 2010 the patient was admitted to intensive care unit for acute coronary syndrome. The coronary angiogram (CAG) showed left anterior descending (LAD) culprit vessel that was treated with two drug eluting stent (DES) implantation and ostial occlusion of right coronary artery (RCA) with collateral circulation provided from 1st obtuse marginal (OM1) and 1st diagonal branch (DB1). However, patient experienced low-exercise effort angina few months after LAD PCI therefore in December 2010 he performed a new CAG that showed patency of previous implanted stent and confirmed presence of RCA CTO with good-developed collateral circulation from left coronary system (CC 2) (Figure 1). Therefore patient was scheduled for RCA CTO recanalization.

Case report

After double coronary cannulation with guiding catheters (7 F Amplatz left 1 in RCA and 7 F XB 3.5 in left coronary system) a Runtrough guidewire (Terumo) with a Corsair catheter (Asahi Intecc) was advanced through the DB1 collateral branch. However, the guidewire was not able to navigate through the channel thus it was exchanged with a Sion guidewire (Asahi Intecc) that reached the distal cup of the occlusion (Figure 2).

After several attempt guidewire successfully crossed the occlusion and was advanced together with Corsair into RCA guiding catheter (Figure 3).

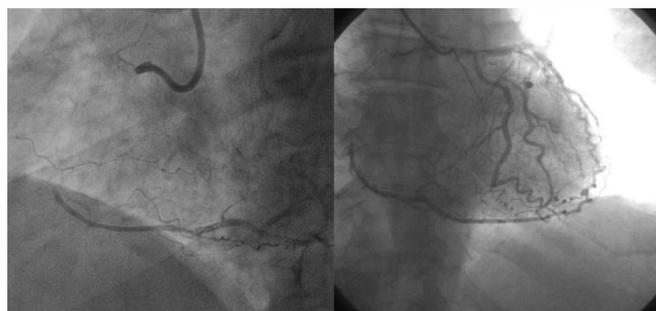


Fig1.

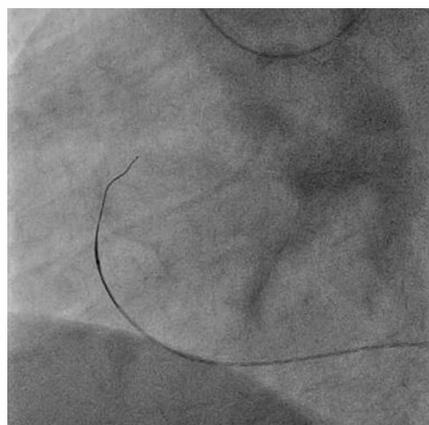


Fig2.

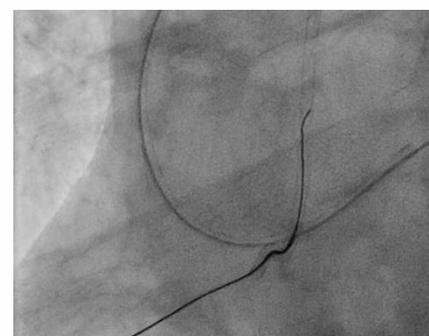


Fig3.



Afterward the Sion guidewire was then exchanged with a 330-cm RG3 (Asahi Intecc) in order to execute the externalization of retrograde guidewire. An over-the-wire (OTW) 1.1x10 mm ACROSS CTO balloon (Acrostak) was then advanced onto the externalized guidewire and advanced into the RCA guiding catheter up to the Corsair (Figure 4). The ACROSS CTO balloon was the inflated in the RCA CTO while Corsair was progressively withdrawn. A floppy guidewire was then inserted by antegrade into balloon catheter (Figure 5) and the lesion was subsequently treated with bigger and bigger balloon followed by three DES Xience (Abbott) implantation (Figure 6)

Conclusions

ACROSS CTO is among the thinnest angioplasty balloons in the world thanks to its small lesion entry profile (1.1mm; 0.016"). Its unique features such as the composite shaft design together with Hydrolubric™ coating and tapered tip of 4.0 mm in length confer high pushability and trackability performance in highly tortuous anatomies even in the most calcified lesions. Moreover, the ACROSS CTO offers superior high-pressure capability due to the balloon material with extreme resistance to potential puncture. In this case the balloon was able to easily navigate through a longstanding occlusion allowing multiple high-atmosphere dilatation up to the distal end of the lesion

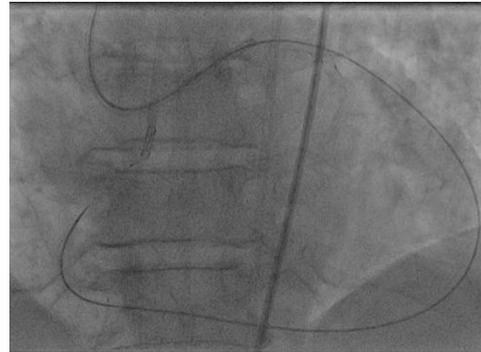


Fig4.

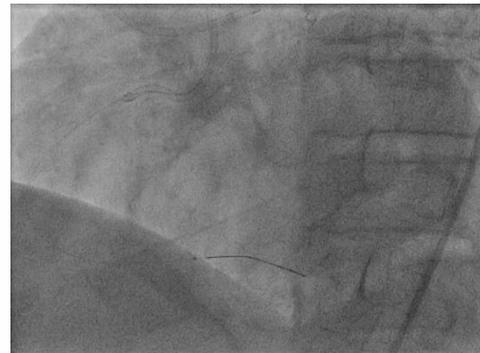


Fig5.



Fig6.

Please consult product labels and package inserts for indications, contraindications, hazards, warnings, cautions and instructions for use.

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