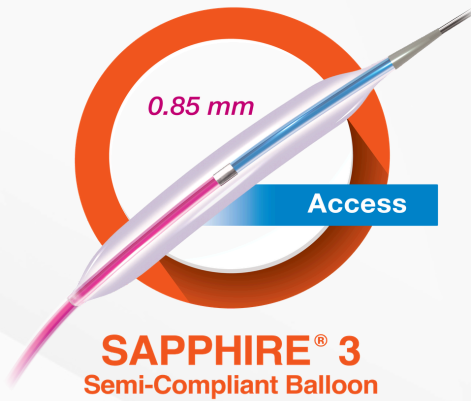
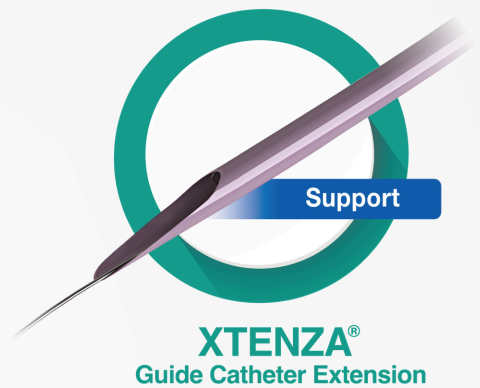




Simplify the
Complex



CASE SPOTLIGHT

Dr. Manuel Eduardo Sáenz Madrigal

Interventional Cardiologist
Hospital Internacional La Católica, Costa Rica

Dr. Vladimir Poutvinski

Interventional Cardiologist
Hospital Internacional La Católica, Costa Rica

CASE SPOTLIGHT



**Dr. Manuel
Eduardo Sáenz
Madrigal**

Interventional Cardiologist
Hospital Internacional La
Católica, Costa Rica



**Dr. Vladimir
Poutvinski**

Interventional Cardiologist
Hospital Internacional La
Católica, Costa Rica

CASE TITLE

RCA CTO CASE

CASE HIGHLIGHTS

A calcified ostial RCA CTO was successfully recanalised using the Teleport® Microcatheter and Xtenza® Guide Catheter Extension for lesion crossing and support. Sequential lesion preparation with Sapphire® 3 and Sapphire® NC 24 balloons enabled successful delivery and implantation of a 3.0 × 43 mm eucalimus™ DES, resulting in excellent stent expansion and restoration of TIMI 3 flow without complications.

CASE DETAILS

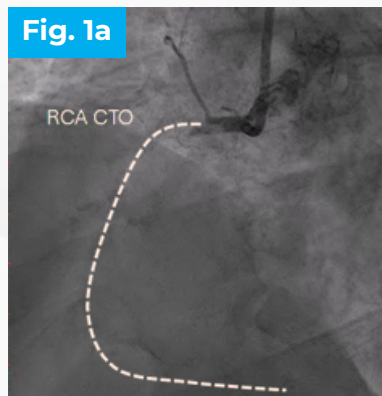
- 58-year-old male. Admitted to the emergency service, following a one-month history of palpitations and precordial chest pain.
- Medical history of diabetes mellitus treated with NPH insulin, hypertension, dyslipidemia treated with rosuvastatin and atrial fibrillation with rapid ventricular response treated with verapamil.
- Laboratory evaluation revealed a positive cardiac troponin level of 2,378, consistent with acute myocardial injury.

CASE SPOTLIGHT

PROCEDURE

The case was carefully evaluated to determine the most appropriate revascularization strategy for the chronic total occlusion (CTO).

Two approaches were initially considered. The first was to obtain a second arterial access to enable dual coronary injections, allowing simultaneous visualization of the right and left coronary systems and facilitating a potential retrograde CTO approach via a suitable septal collateral from the left coronary artery (Fig. 1a and 1b). The second option was to maintain the initial right radial access and proceed with an antegrade CTO crossing strategy.

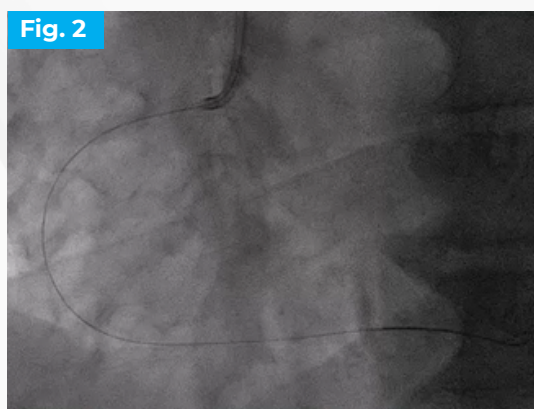


RCA presented CTO from ostial segment.

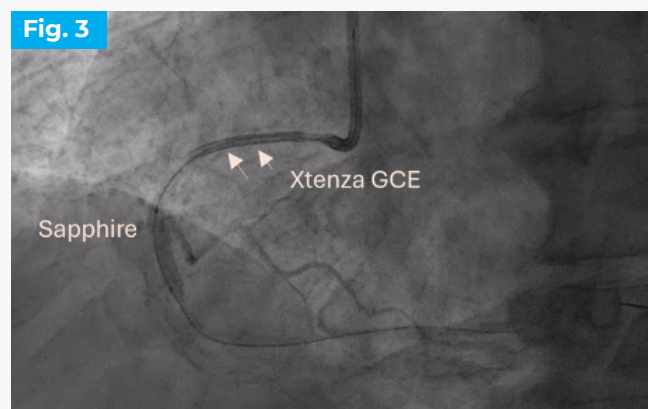


Left coronary systems enabling a potential retrograde CTO approach through septal collateral.

After careful consideration, the antegrade approach was selected. A guiding catheter was used and provided moderate guide support. A coronary guidewire was then successfully advanced through a 135-cm Teleport® microcatheter toward the distal RCA (Fig. 2). As guide support was considered suboptimal, an Xtenza® 6F guide extension catheter was introduced to improve backup support during balloon delivery (Fig. 3).



Guidewire successfully crosses the CTO RCA supported by Teleport® microcatheter.



A 6F Xtenza GCE was used to improve backup support due to suboptimal RCA ostial engagement, Sapphire® was used for further plaque dilatation at mid RCA.

CASE SPOTLIGHT

Sequential lesion preparation was performed using a 2.5 × 20 mm Sapphire® 3 balloon. Given the severe calcification of the right coronary artery, further lesion dilatation was performed using a 3.5 × 15 mm Sapphire® NC 24 balloon, achieving satisfactory lesion expansion and restoration of adequate coronary flow.

A 3.0 × 43 mm eucaLimus™ DES was then delivered without difficulty and successfully deployed. Based on the vessel diameter in the proximal segment, post-dilation was performed using a 4.0 × 8 mm Sapphire® NC 24 balloon to optimize stent expansion and apposition.

Final angiography demonstrated an excellent procedural result, with optimal stent expansion, no significant residual stenosis, and restoration of TIMI grade 3 coronary flow (Fig. 4).



Post-PCI stented with 3.0 x 43 mm eucaLimus® ultra-thin strut DES from ostial RCA to mid RCA and post-stenting optimization with Sapphire® NC24 4.0 x 8 mm.

DISCUSSION

This case highlights the importance of selecting an appropriate CTO revascularization strategy and optimizing procedural support during complex PCI.

The Teleport® microcatheter supported controlled guidewire advancement across the CTO lesion, while the Xtenza® 6F guide extension catheter improved backup support when guide catheter support was suboptimal. The Sapphire® 3 balloon, with its low crossing profile, enabled initial lesion preparation, followed by further lesion optimization and post-dilation using the higher pressure (RBP 24 atm) Sapphire® NC 24 balloon to achieve satisfactory stent expansion and apposition. The eucaLimus™ DES, featuring an ultrathin strut design with good radial strength, was successfully delivered through the tortuous RCA CTO segment and achieved good lesion apposition, contributing to an excellent final angiographic result.