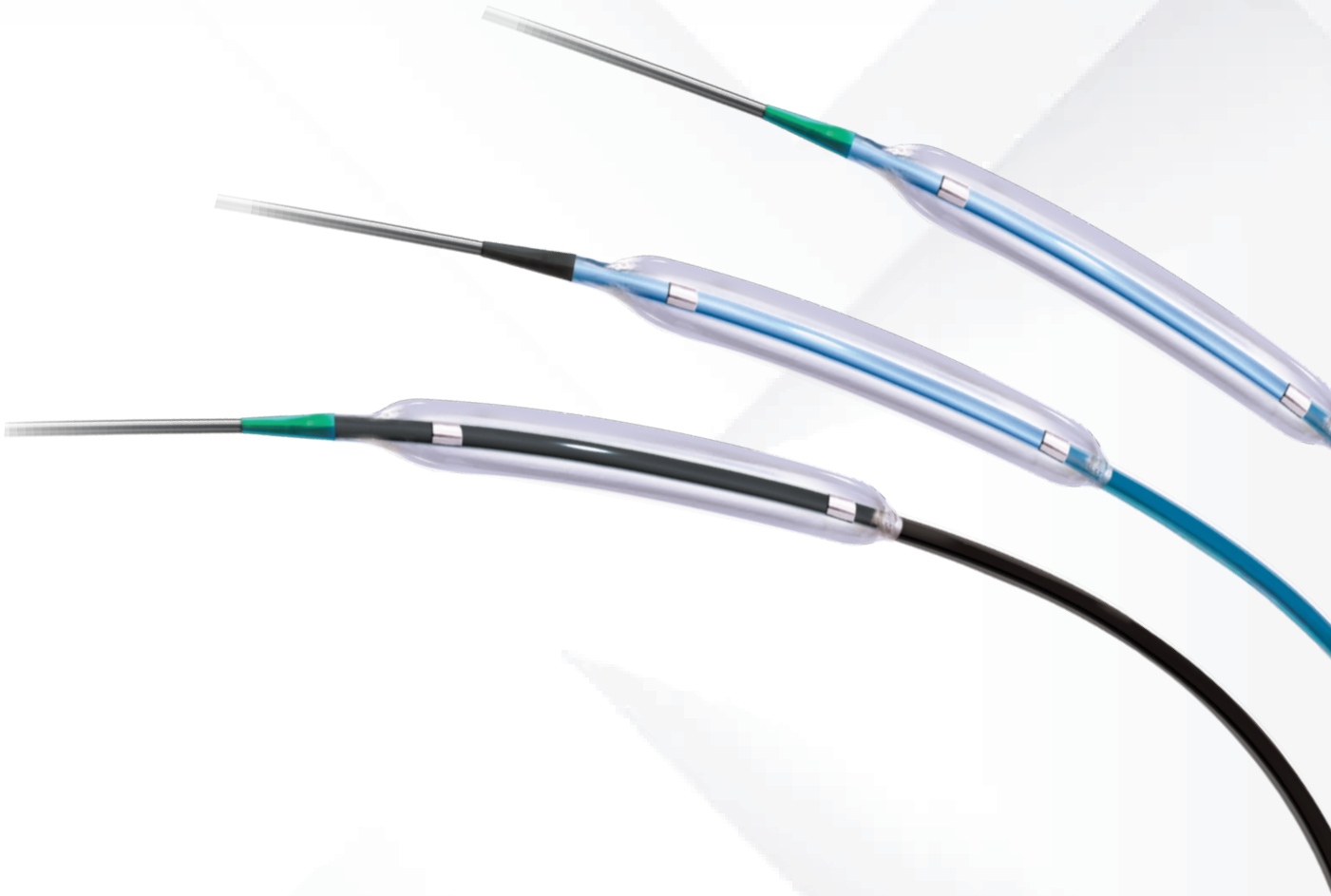
Jade®

PTA BALLOON CATHETER



CASE **SPOTLIGHT**

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OrbusNeich®

Pioneers in life-changing technologies

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- **Case study using the new OTW Jade® 0.018" system**
  A case in which the new OTW 0.018" high pressure minimal compliant Jade® balloon (OrbusNeich) was more effective than one of its competitors with a lower profile balloon OTW system (0.014") to cross a very calcified distal anterior tibial artery (ATA) lesion to open up the blood supply into the dorsalis pedis artery (DPA)

CASE STUDY

CASE DETAILS

- 88-year-old Indian female (walker) with a 5-day history of recurrent chronic limb threatening ischaemia (Rutherford stage 5)
- Risk factors for peripheral arterial disease included hypertension, hyperlipidemia, Type II diabetes and chronic renal impairment (non-HD dependent)
- Non-healing small ulcer on left big toe with associated rest pain. Previous left lower limb angioplasty (plain balloon angioplasty) to open a left superficial femoral artery (SFA) occlusion 3 months prior with a semi-compliant balloon. Pre-operative Duplex (Figure 1) showed a recurrent left SFA occlusion and a low toe pressure reading of 19 mmHg.

Fig. 1

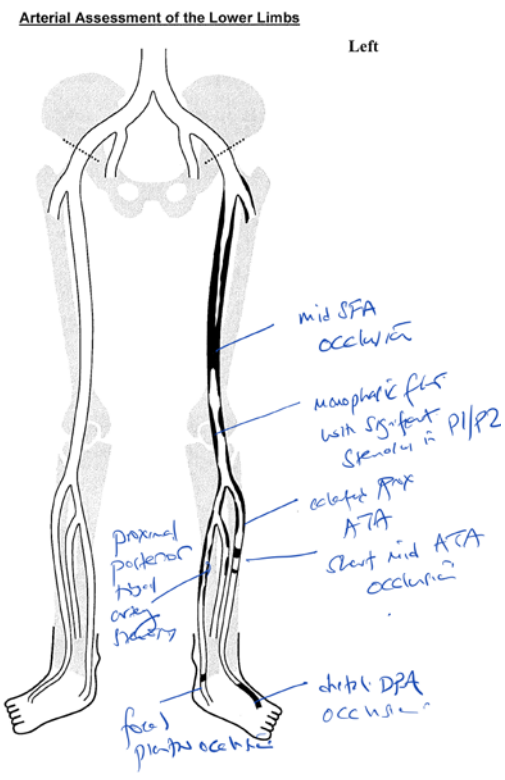
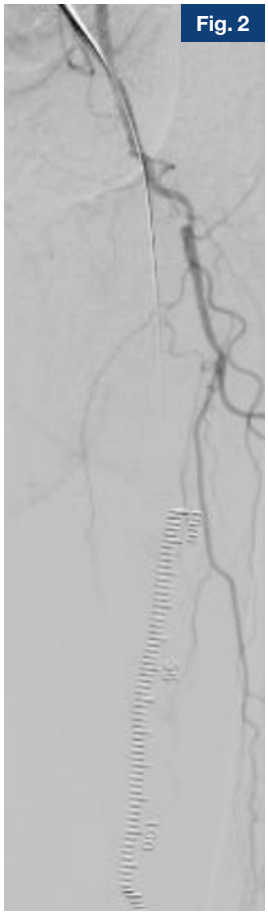


Fig. 2



PROCEDURE

A short 5Fr sheath was inserted in an antegrade fashion through the left mid common femoral artery under ultrasound guidance (Figure 2). The initial diagnostic angiogram showed a recurrent long sfa occlusion extending into P3 segment of the popliteal artery (Figure 2).

The ATA which was the target vessel of choice in view of the location of the ulcer was occluded from near the ATA origin with minimal filling of the foot vessels (Figure 3 & 4).

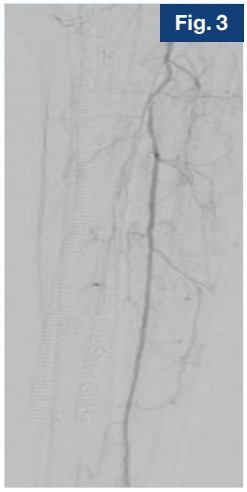

Fig. 3



Fig. 4

Upon successful crossing of the SFA occlusion with an 0.018" wire supported by a catheter, the fem-pop segment was serially dilated with NC OTW 0.018" Jade® balloon (4 mm and 5 mm x 180 mm), each for 3 minutes duration at 20 atm pressure (Figure 5 & 6).

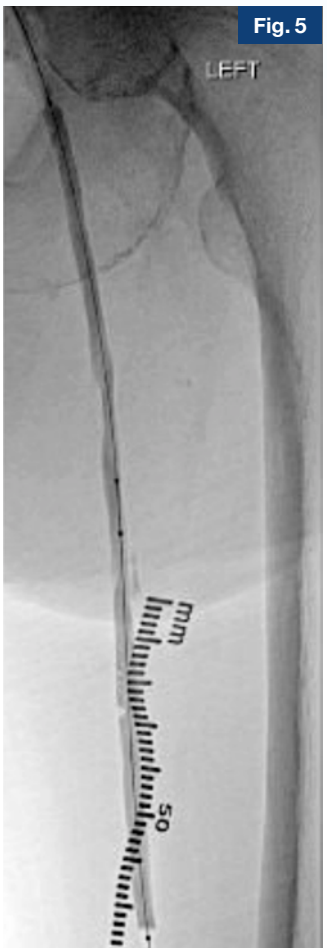


Fig. 5

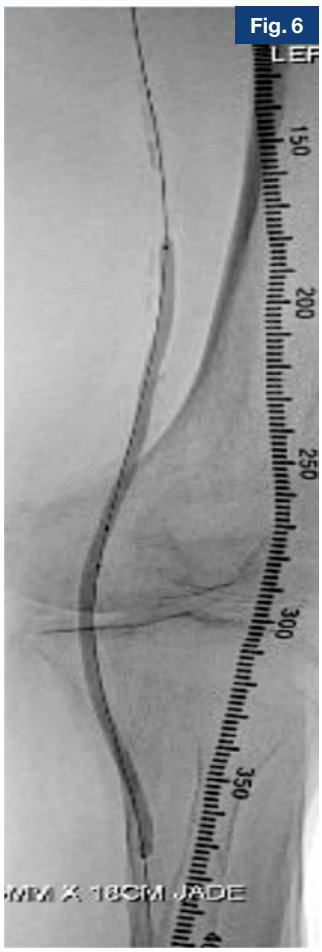


Fig. 6

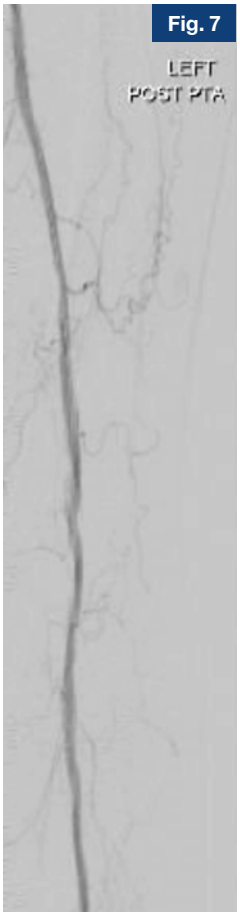


Fig. 7

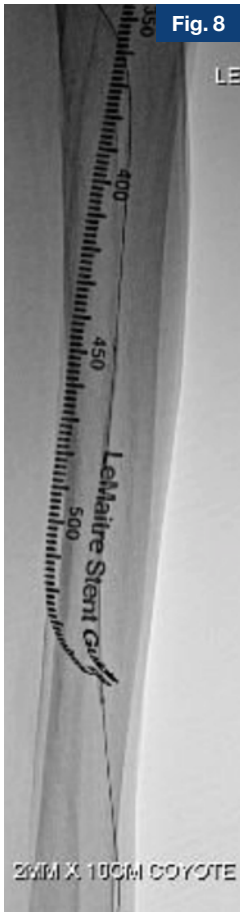


Fig. 8

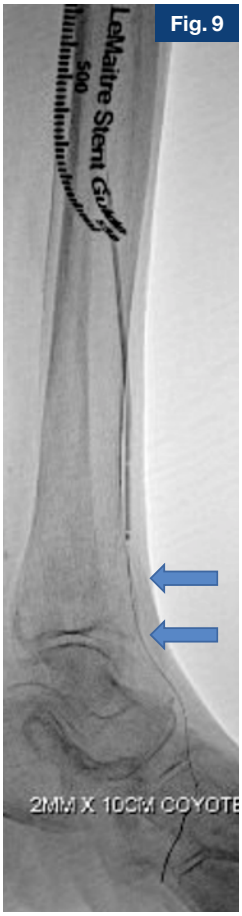


Fig. 9

This luminal gain and blood flow within the fem-pop segments improved significantly (Figure 7). Attention was turned to the ATA and this was crossed successfully with the same wire and support system (Figure 8). The wire was exchanged for an 0.014" wire and a semi compliant low profile balloon (2.5 mm x 100 mm) was introduced into the ATA (Figure 8). Unfortunately, despite multiple attempts, including pre-dilatation of the occluded proximal ATA, there was failure to cross into the DPA because of a segment of heavily calcified distal ATA (blue arrows -Figure 9).

CASE SPOTLIGHT

JADE® PTA BALLOON CATHETER

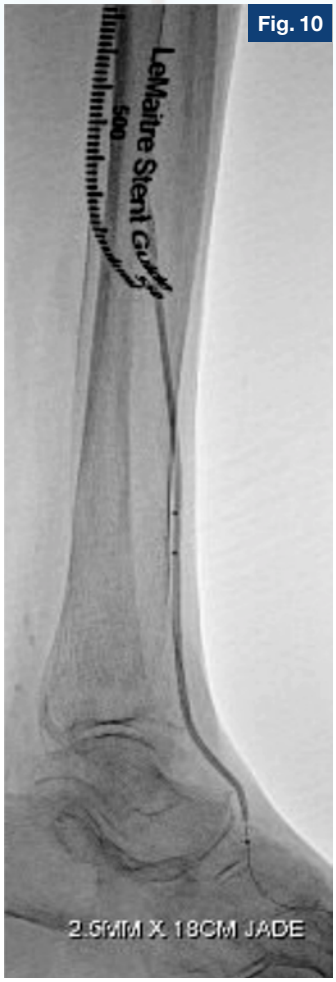
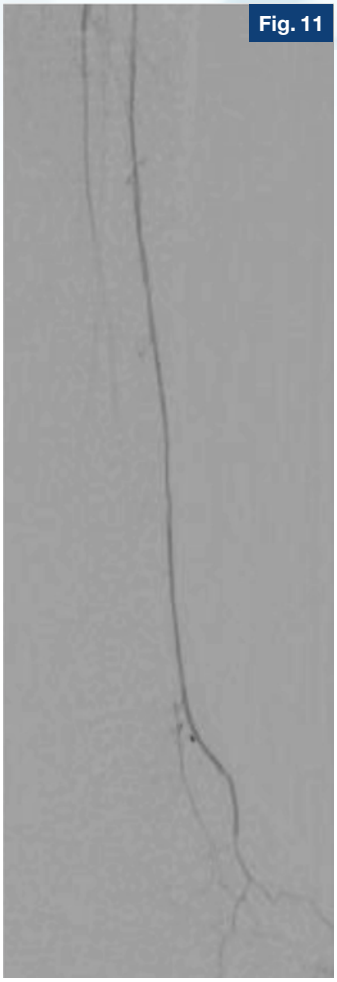


Fig. 10


Fig. 11

An OTW 0.018” 2.5 mm x 120 mm JADE balloon was used and this crossed into the DPA on the first attempt and allowed successful balloon dilatation of the distal ATA and DPA (Figure 10). At the end of the procedure there was a palpable DP pulse and good flow (Figure 11). This resulted in successful healing of the ulcer by 3 weeks.

DISCUSSION

One of the downfalls of a calcified lesion is that although a wire may cross the occlusion or stenosis, an ensuing catheter or balloon may not follow. This case demonstrates nicely the excellent trackability of the JADE 0.018” OTW balloon, even though its profile is bigger than its 0.014” lower profile competitor semi compliant balloon. The proximal segment (harder material) allows for better pushability whilst the distal segment (softer in nature) allows for greater flexibility to navigate more distal tortuous lesions.

JADE is also available in a 014 Rx system which features a longer 60 cm guidewire lumen allowing for extra pushability and trackability for more distal lesions. It has a high burst pressure (22 atm RBP) aimed for opening more calcified and resistant lesions. It has a low balloon compliance for controlled opening of resistant lesions and allows for safe and precise inflation. The high pressure afforded by the balloon catheters may attenuate the elastic recoil phenomena associated with normal semi-compliant balloons by overcoming the rigidity the calcium places on the vessel wall.

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