

CASE SPOTLIGHT



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CASE STUDY 1

A Case in which High Pressure Dilatation Using the JADE Balloon was Effective for the Lateral Plantar Artery

CASE DETAILS

- Male patient in his 60s
- Critical limb ischemia (Rutherford Stage 6)
- Risk factors for arteriosclerosis: Hypertension, dyslipidemia, diabetes, and chronic kidney disease (maintenance dialysis)
- Patient with an intractably infected ulcer at the first left toe was admitted for catheter treatment

PROCEDURE

A 4F long sheath was inserted via antegrade approach from the left inguinal region towards to the distal popliteal artery. Radiological findings revealed a 99% diffused stenosis from the posterior tibial artery to the lateral plantar artery [Fig. 1, 2, and 3]. Upon successful lesion crossing with a 0.014" guidewire supported by a microcatheter, balloon dilatation at the lateral plantar artery (LPA) was performed using a 1.5 mm semi-compliant balloon but with residual stenosis [Fig. 4 and 5]. A 2.0 × 120 mm JADE balloon was then used to perform high-pressure (22 atm) dilatation in the LPA [Fig. 6]. The same JADE was then used to dilate another lesion at the posterior tibial artery (PTA) at the same atmospheric pressure, followed by further lesion expansion with an upsized 2.5 × 120 mm JADE to achieve good blood flow from the PTA to LPA as illustrated in the final images [Fig. 7, 8, and 9]. Granulation (wound healing) accompanied by improved post-procedural perfusion were witnessed while patient underwent vacuum-assisted closure.

Fig. 1

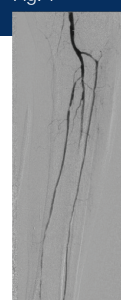


Fig. 2

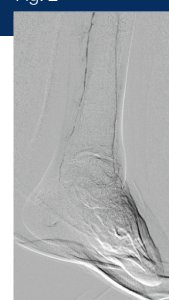


Fig. 3

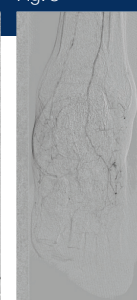


Fig. 4



Fig. 5

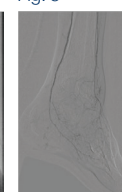


Fig. 6



Fig. 7

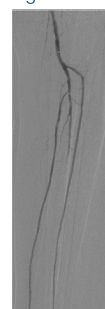


Fig. 8

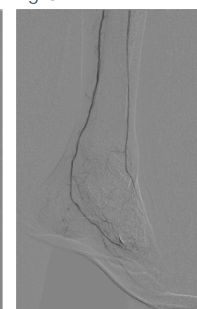
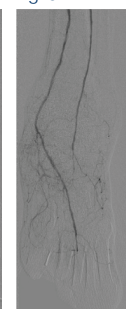


Fig. 9



DISCUSSION

Balloon under expansion and rupture are common shortfalls with conventional semi-compliant balloons in the treatment of severely calcified lesions. However, JADE PTA being a non-compliant balloon performs safe and effective balloon expansion with minimal balloon growth even when inflated up to 22 atm. Compared with other non-compliant balloons, JADE PTA have balloon length offerings up to 240 mm to help shorten procedural time and reduce radiation dosage.