# Popliteal PTA and Transpedal Reconstruction Using the Chocolate® PTA Balloon

A case report detailing treatment of popliteal disease and diabetic foot ulcer.

BY MEHDI H. SHISHEHBOR, DO, MPH, PHD

An 82-year-old woman with diabetes mellitus and a bilateral midfoot collapse due to Charcot arthropathy and partial first ray amputations presented to the clinic with a left midfoot ulceration that had been present for 1 month and a heel ulcer present for 3 months (Figure 1).

The patient's medical history included coronary artery disease, hypertension, hyperlipidemia, and peripheral artery disease, as well as diabetes mellitus.

Pulse volume recording revealed severe distal superficial femoral artery (SFA) and popliteal disease with significant distal foot disease, as showed by flat tracing at the metatarsal and digit level (Figure 2). Diagnostic angiography revealed patent iliacs, common femoral artery, and SFA, with severe calcification of the popliteal artery with subtotal occlusion (Figure 3).

Diagnostic angiography revealed severe subtotal popliteal disease (Figure 4A). Lesions were prepared with a Diamondback 1.5-mm crown (Cardiovascular Systems, Inc.) with distal embolic protection. Percutaneous transluminal angioplasty (PTA) was performed with a 6- X 80-mm Chocolate® PTA Balloon Catheter (manufactured by TriReme Medical, LLC, distributed by Cordis Corporation). The final angiogram showed a good result (Figure 4D).


Figure 1. The patient presented with a heel ulcer.

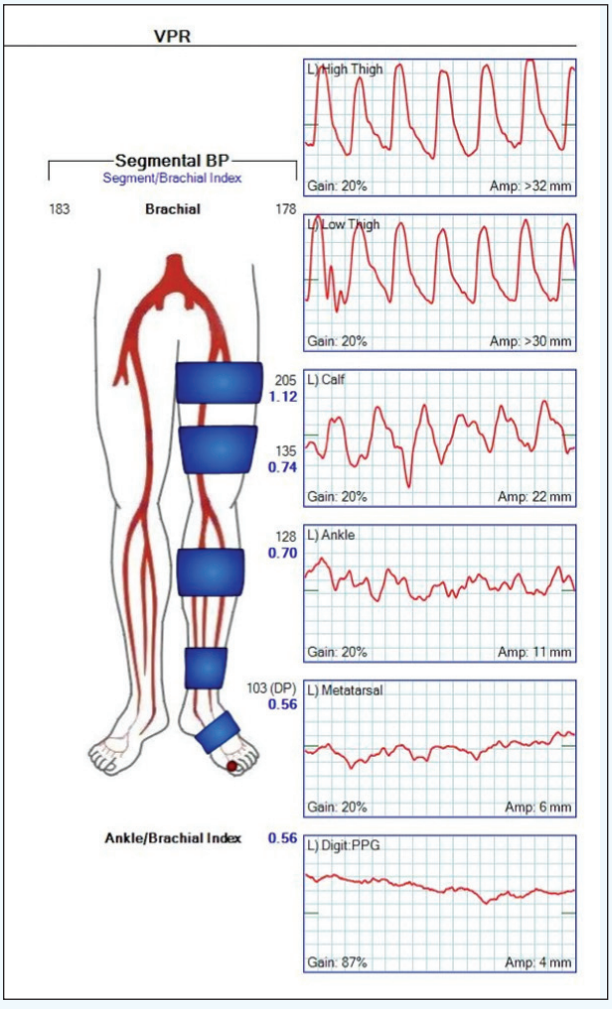


Figure 2. PVR revealed severe distal SFA and popliteal disease with significant distal foot disease.

Complex retrograde transpedal reconstruction of the distal anterior tibial, pedal arch, and all of the posterior tibial artery was performed using a 2.5-mm X 120-mm, followed by a 3-mm X 120-mm, Chocolate® PTA Balloon (Figure 5). Revascularization resulted in excellent two-vessel runoff to the foot (Figure 6A) with an intact pedal arch (Figure 6B). After 4 months of aggressive wound care, the heel ulcer healed completely (Figure 7). ■

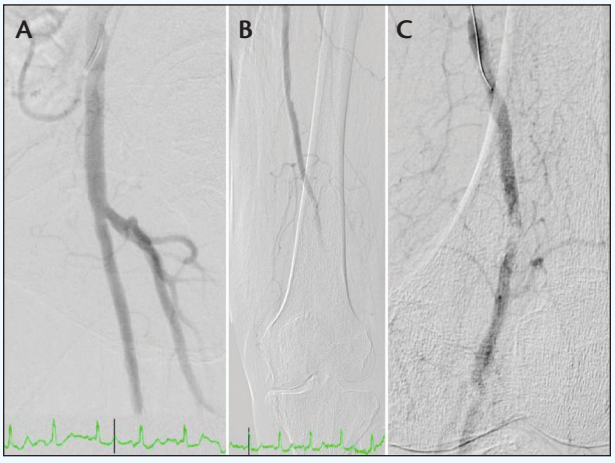


**Figure 3. Angiography revealed patent iliacs (A), common femoral artery, and SFA (B) with severe calcification and narrowing of the popliteal artery (C).**

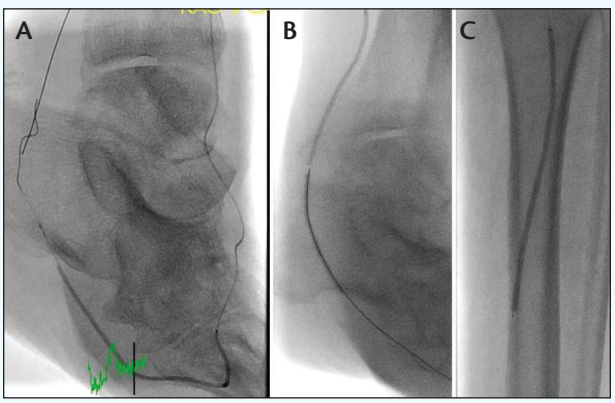


**Figure 5. Complex retrograde transpedal reconstruction of distal anterior tibial artery and pedal arch (A) and Chocolate® PTA Balloon angioplasty of the distal (2.5 mm x 120 mm) (B) and proximal (3 mm X 120 mm) posterior tibial artery (C).**

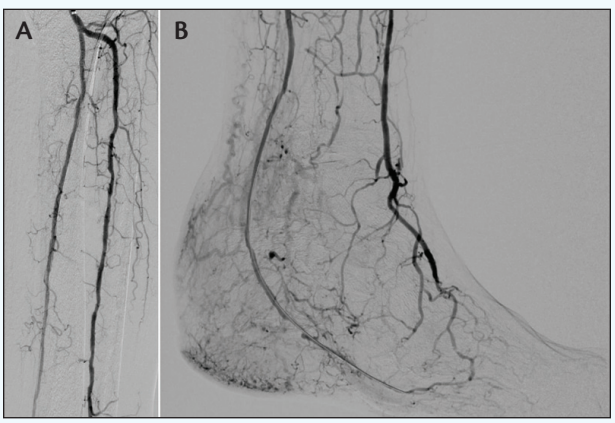


**Figure 6. Excellent two-vessel runoff to the foot (A) with intact pedal arch (B).**

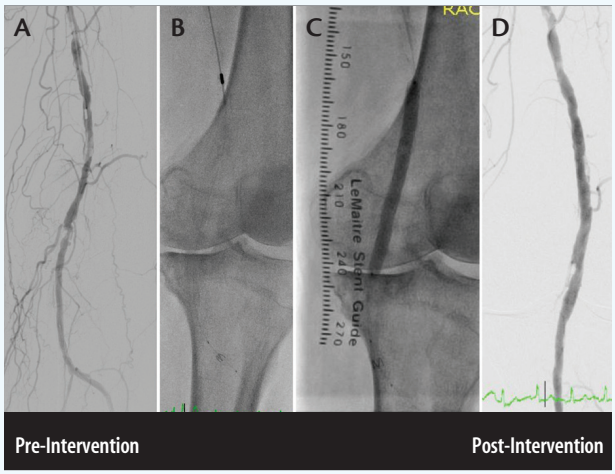


**Figure 4. Diagnostic angiography revealed severe, heavily calcified subtotal popliteal disease (A). Atherectomy was performed using a Diamondback 1.5-mm crown (B). A 6-mm X 80-mm Chocolate® PTA Balloon was delivered without difficulty (C). The balloon was inflated slowly over 30 seconds to 4 atm and then to nominal pressure of 6 atm for 3 minutes. Final angiogram shows a good result (D).**

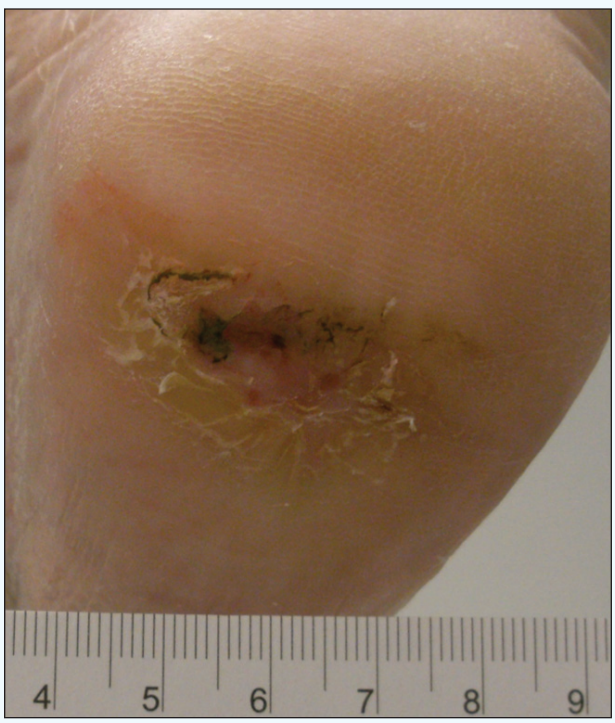


**Figure 7. Totally healed heel ulcer after 4 months.**