CASE REPORT

Removal of Multifocal Organized Thrombi Using the Pounce™ and Pounce™ LP Thrombectomy Systems

By Michael Nagib, MD

Patient Presentation

A female patient in her mid 70s presented with a 1-day history of left lower extremity pain. The patient reported pain in her left calf and foot that worsened with activity. Patient history included gastric cancer and atrial fibrillation, with cessation of anticoagulation due to upcoming gastrointestinal endoscopy. On physical exam, palpable pulses were found in the right foot and diminished pulses were found in the left foot, the latter intermittently detected via Doppler ultrasound. Motor function and sensation were intact bilaterally, but a temperature difference was observed between the left and the right foot.

Diagnostic Findings

Upon admission, CTA showed multifocal mild-to-moderate atherosclerotic disease in the left superficial femoral artery (SFA) with focal popliteal artery occlusion. Of note, the patient had variant anatomy with a high takeoff of the left anterior tibial (AT) artery. Findings were confirmed on catheter-directed angiography via right common femoral access with occlusion of the popliteal artery and subocclusive clot extension into the high takeoff of the AT artery. Prior to the intervention, the patient had single-vessel runoff via the AT artery and distal reconstitution of the left posterior tibial (PT) artery.

Treatment

Using right common femoral access, a 7 Fr, 65 cm Pinnacle® Destination® Guiding Sheath (Terumo Interventional Systems) was introduced up and over the aortic bifurcation into the left lower extremity. With the assistance of a Seeker™ Crossing Support Catheter (BD), a .014 guidewire successfully crossed the lesion and was advanced into the left AT artery. The Pounce™ Thrombectomy System* (Surmodics, Inc.) was then introduced with basket deployment in the proximal AT artery and funnel deployment in the proximal popliteal artery. One pass with the Pounce™ System removed organized thrombus, restoring patency in the popliteal artery (Figure 1). Balloon angioplasty of the peroneal and PT arteries was performed; however, angiography showed persistent occlusion of the PT artery with clot extension toward the peroneal artery origin. The Pounce™ LP Thrombectomy System† (Surmodics, Inc.) was then deployed with the baskets in the PT artery and the funnel in the popliteal artery. One pass with Pounce™ LP System was performed, removing organized thrombus, restoring patency of



Figure 1. Angiogram of popliteal artery before intervention (A) and restored flow after one pass of the Pounce™ Thrombectomy System (B).

Figure 2. Pre- (A) and postintervention (B) angiograms demonstrate restored patency of the PT artery and cleared thrombus that was extending toward the peroneal artery origin after one pass of the Pounce™ LP Thrombectomy System.

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toward the peroneal artery origin (Figure 2). Final angiography showed three-vessel runoff to the left ankle and dominant flow into the foot via the AT and PT arteries.

Postprocedure Outcome

The patient tolerated the procedure well and was discharged 5 days later to allow for continued monitoring due to the history of atrial fibrillation. The patient was transitioned from heparin to apixaban prior to discharge, and outpatient follow-up was scheduled in 2 to 3 weeks. The Pounce™ Thrombectomy Platform extracted multifocal organized thrombi in a patient with variant anatomy and restored robust flow to the foot without the need for thrombolysis or aspiration thrombectomy. ■

*The indicated vessel range for the Pounce™ Thrombectomy System is 3.5-6 mm.
¹The indicated vessel range for the Pounce™ LP Thrombectomy System is 2-4 mm.



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Caution: Federal (US) law restricts the Pounce™ Thrombectomy System to sale by or on the order of a physician. Please refer to the product's Instructions for Use for indications, contraindications, warnings, and precautions. SURMODICS, POUNCE, and SURMODICS and POUNCE logos are trademarks of Surmodics, Inc. and/or its affiliates. Third-party trademarks are the property of their respective owners.