

CASE REPORT

Treating Common Femoral and Popliteal Artery Occlusions With the Pounce™ Thrombectomy System

By Peter A. Soukas, MD

PATIENT PRESENTATION AND DIAGNOSTIC FINDINGS

A man in his late 70s with a history of atrial fibrillation, type 2 diabetes mellitus, high blood pressure, heart failure with preserved ejection fraction, and aortic insufficiency stopped his warfarin for 5 days in anticipation of right knee steroid injection. The patient developed abrupt onset of right foot pain and numbness. On presentation, he was found to have cool foot with intact motor function and mildly diminished sensation of the toes. CTA showed thrombotic occlusion of the right common femoral artery (CFA). The patient was emergently referred for angiography and intervention for acute limb ischemia (ALI).

TREATMENT

Angiography confirmed right CFA thrombotic occlusion (Figure 1A). Two passes were performed with the Pounce™ Thrombectomy System (Surmodics, Inc.) in the right CFA to remove the clot and restore flow (Figure 1B). Angiography following CFA flow restoration revealed another thrombotic occlusion in the proximal popliteal artery (Figure 2A). With the baskets deployed in the distal popliteal artery and the funnel deployed in the superficial femoral artery (SFA), three passes removed organized clot, likely of cardiac emboli origin, which restored flow to the anterior tibial (AT) artery (Figure 2B) and resolved sensory deficits. Catheter-directed thrombolysis (CDT) was used overnight in the tibioperoneal trunk. Final angiograms showed restoration of three-vessel runoff (Figure 3), with all patient symptoms resolved.

POSTPROCEDURE OUTCOMES AND PHYSICIAN OBSERVATIONS

The patient was discharged with prescribed apixaban replacing warfarin. The Pounce™ Thrombectomy System allowed for quick and efficient treatment of ALI in the CFA and AT artery, restoring flow and resolving sensory deficits. The fully mechanical Pounce™ System allowed us to avoid the blood loss associated with aspiration thrombectomy and enabled removal of suspected cardiac emboli, which are notorious for being organized. Only 10 mg tissue plasminogen activator was required to lyse the small thrombus burden below the knee, minimizing the risk of bleeding complications. ■

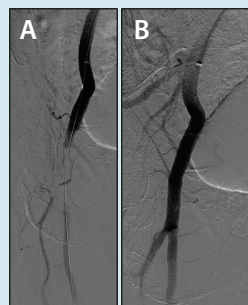


Figure 1. Angiogram showing right CFA thrombotic occlusion (A), with restored flow after two passes of the Pounce™ Thrombectomy System (B).

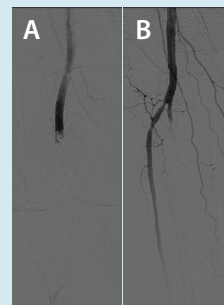


Figure 2. Angiography showing thrombotic occlusion in the proximal popliteal artery (A). Restored flow to AT artery after three passes with the Pounce™ Thrombectomy System (B).



Figure 3. Final angiograms showing restored flow in the CFA (A), SFA and popliteal artery (B), as well as tibial runoff (C) down to the foot (D).



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