

CASE REPORT

Severe Common Femoral Artery Disease and Failed Femoropopliteal Artery Graft: Amputation Avoided Through Use of DABRA Excimer Laser in an OBL Setting

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CASE PRESENTATION

A 61-year-old woman presented with lifestyle-limiting claudication and severe left foot pain at rest. Her prior medical history included type 2 diabetes mellitus, hyperlipidemia, hypertensive heart disease, myocardial infarction, atherosclerosis, and cerebrovascular accident, with comorbidities including anemia and deep vein thrombosis. She was also a former heavy smoker. She had a history of prior interventions, including angioplasty and stenting of the left common iliac artery, atherectomy and angioplasty of left femoropopliteal graft distal anastomosis, atherectomy and angioplasty of the left common femoral artery (CFA), and a left common femoropopliteal graft bypass, which had failed three times. Upon failure of the last bypass, she was told her only remaining option was amputation. She came to our center for further disease management.

COURSE OF TREATMENT

After completing a thorough workup and evaluation, the decision was made to attempt an intervention to save the limb. After informed consent, the patient was brought into the angiography suite and placed in a supine position. The area of the left leg was prepared and draped in a sterile fashion. A 2% lidocaine solution was instilled into the skin and subcutaneous tissue. With ultrasound guidance, a micropuncture needle (Micropuncture access set, Cook Medical) was used to gain access to the distal bypass graft. Then, a micropuncture wire, dilator, and sheath were advanced and a 5-F Pinnacle sheath (Terumo Interventional Systems) was placed. Angiography of the left lower extremity

runoff was performed in stages, a 0.014-inch Hi-Torque Command peripheral guidewire (Abbott Vascular) was passed through the CFA, and intravascular ultrasound of the iliac system, CFA, and the bypass graft was performed, which indicated a 70% stenosis in the CFA before the origin of the femoropopliteal graft (Figure 1).

The patient was anticoagulated with 4,000 units of heparin. Laser photoablation was performed using DABRA Excimer Laser (Ra Medical Systems, Inc.) across the CFA (Figure 2), followed by stenting with an 8- X 40-mm Absolute Pro vascular self-expanding stent (Abbott Vascular) and postdilatation with a 7- X 40-mm Armada percutaneous transluminal angioplasty balloon (Abbott Vascular) at 14 atm for 2 minutes.

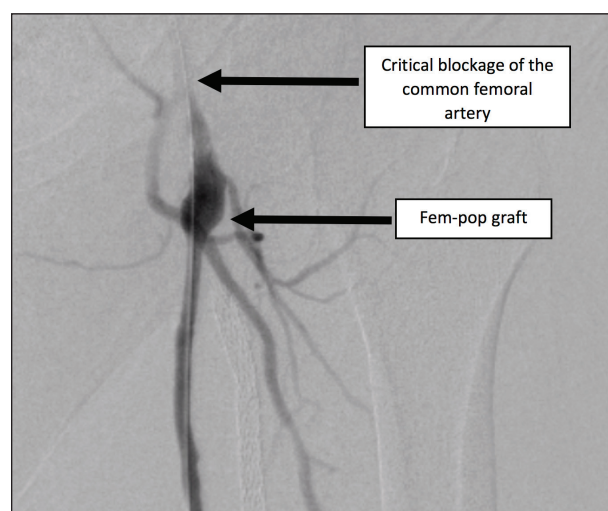


Figure 1. Preintervention angiogram showing a critically diseased CFA above the femoropopliteal graft.

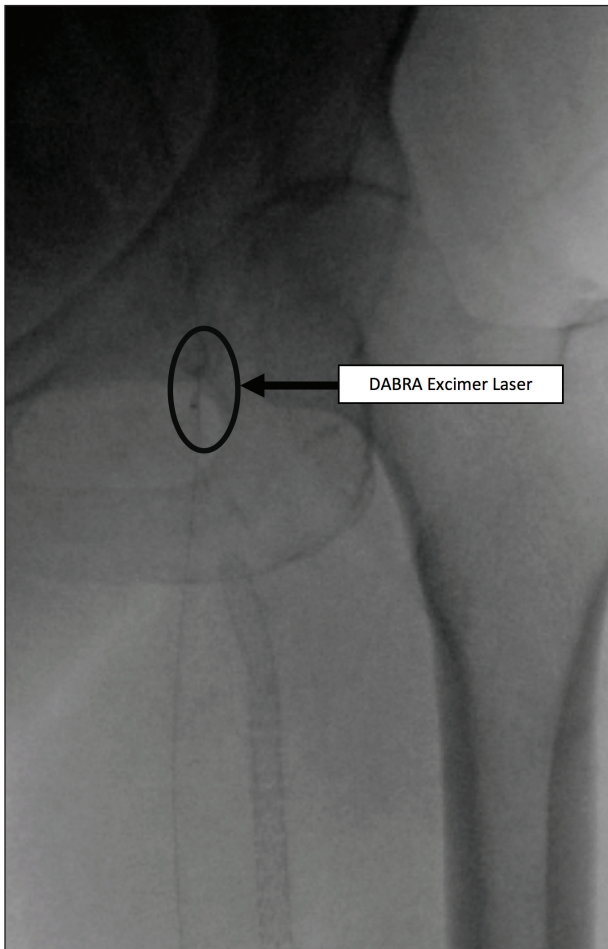


Figure 2. Access was gained through the distal bypass graft, and DABRA Excimer Laser was used to open the CFA.

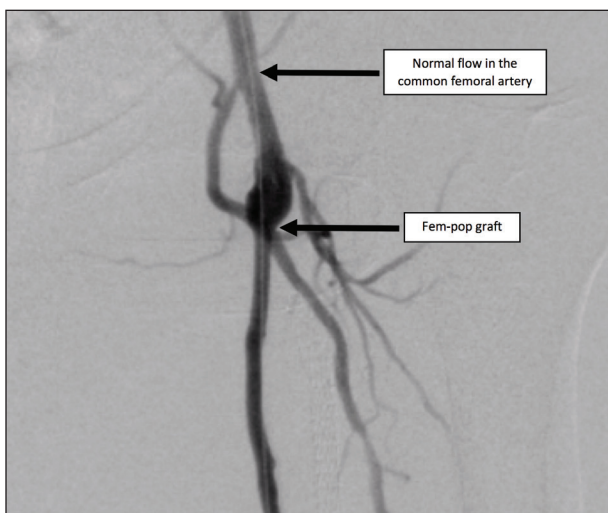


Figure 3. Postintervention angiogram showing normal flow through the CFA above the femoropopliteal graft.

RESULTS

A completion angiogram demonstrated brisk flow (Figure 3). The sheath was removed and pressure was held for 15 minutes. The patient tolerated the procedure well, the overall procedure time was 45 minutes, and there were no adverse events.

At the 2-week postprocedure follow-up visit, an angiogram showed continued brisk flow. The patient remained asymptomatic on the left side and was rest pain free.

DISCUSSION

In our office-based lab, we are always looking for cutting-edge devices and techniques. Of utmost importance to our group are safety, ease of use, efficacy, and cost-effectiveness so that we can efficiently restore blood flow for our patients, save limbs, and avoid amputation. In this case, the disease was in the CFA, which is a large vessel, so we chose to use DABRA Excimer Laser. In our experience, we have found that DABRA clears plaque burden efficiently and safely. The DABRA Excimer Laser enabled us to efficaciously treat this patient without any complications. ■

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