Iliac Remote Endarterectomy: Restoring Circulation In A Patient With Infected Aorto-femoral And Axillo-bifemoral Bypasses

Kenneth R. Nakazawa MD, Melissa Baldwin MD, Shivani Kumar MD, David J. Finlay MD

Author Affiliations:
Division of Vascular Surgery, Department of Surgery, The Mount Sinai Medical Center, New York, NY, USA
Department of Surgery, New York Medical College at Metropolitan Hospital Center, New York, NY, USA

Objectives
We report a case of a patient who underwent right obturator bypass and left iliac remote endarterectomy (RE) to treat infected, previously failed, aorto-right-femoral and right axillo-bifemoral bypass reconstructions.

Methods
A 68-year-old man presented to an outside hospital with ruptured 10cm infrarenal abdominal aortic aneurysm and bilateral common iliac artery aneurysms (CIAA). He underwent open aorto-right-femoral bypass via transperitoneal approach (left iliacs were occluded). A bifurcated Dacron graft with oversewn left limb was used for conduit. His bypass thrombosed, and he underwent a right axillo-bifemoral bypass. He eventually transferred to our hospital with right lower extremity rest pain and serous drainage from right groin. Imaging showed subcutaneous gas and stranding in the right groin and along the grafts, concerning for infection (Figure 1). The right superficial femoral artery was occluded distally. Through a midline, retroperitoneal approach, we performed an obturator bypass from Dacron remnant to right above-knee popliteal artery using PTFE bifurcated graft and extension. The prior aorto-right-femoral bypass was noticeably kinked at its previously altered bifurcation. Open thrombectomy of left CIAA was performed, followed by thrombo-endarterectomy of left internal iliac. We attempted passing a Fogarty balloon cephalad from the left common femoral, but could not, so RE was performed from left external iliac to CIAA. The left limb of the bifurcated PTFE graft was sewn into the left iliac bifurcation. The axillo-bifemoral grafts were suture-ligated and removed through the right groin (Figure 2). The groin was partially closed with wound vacuum applied.

Results
Ankle-brachial indices were 1.06 and 1.04 in the right and left. At 1-month follow-up, he had no complaints. His right groin wound was completely covered with healthy granulation tissue.

Conclusion
Iliac RE is a good option for moving prosthetic back into the abdomen, especially in the setting of infection. Additional benefits include restoring normal anatomy and important pelvic collaterals.

Figures
Figure 1. Computed tomography scan showing subcutaneous gas and stranding in the right groin around the bypass graft, concerning for infection.

Figure 2. Removed femoral-femoral and axillo-femoral bypass grafts.

Author Disclosures: K. Nakazawa: None; M. Baldwin: None; S. Kumar: None; D. Finlay: None.