

1083 **Endovascular Rescue of Extensive Iliac Artery Dissection After Open Abdominal Aortic Aneurysm Repair
Using Bidirectional Access and IVUS-Guided Flap Puncture**

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An 84-year-old man was referred to our department with new-onset intermittent claudication of the left leg and a reduced ankle-brachial index after open surgical repair of an abdominal aortic aneurysm with prosthetic graft replacement 2 months earlier. Although postoperative non-contrast computed tomography showed no obvious abnormality, duplex ultrasonography suggested severe stenosis of the left external iliac artery, and endovascular treatment was undertaken. A retrograde approach via the left common femoral artery was initially attempted; however, the guidewire could be advanced only to the vicinity of the internal iliac artery bifurcation and could not be passed into the aorta. Angiography failed to visualize the left common iliac artery, while intravascular ultrasound (IVUS) revealed a large dissection cavity in the left external iliac artery with severe compression of the true lumen. An additional antegrade approach via the left brachial artery was therefore established, and the left common iliac artery was selectively engaged. IVUS demonstrated a massive dissection cavity distal to the prosthetic graft anastomosis. The antegrade guidewire was located within the dissection cavity, whereas the retrograde guidewire remained in the true lumen. Under IVUS guidance, a 60-g tip-load guidewire was advanced retrogradely to puncture the dissection flap from the true lumen into the dissection cavity, thereby establishing communication between the two channels. A stent graft and a bare-metal stent were then deployed from the prosthetic graft anastomosis across the flap-puncture site. Because angiography demonstrated contrast leakage from the proximal edge of the stent graft, an additional stent graft was implanted proximally, resulting in restoration of satisfactory flow. This case highlights the value of bidirectional access and IVUS-guided flap puncture as an effective endovascular bailout strategy for extensive iliac artery dissection after open abdominal aortic aneurysm repair.