

Emergent endovascular repair of a ruptured giant internal iliac artery aneurysm using an inverted iliac limb endograft

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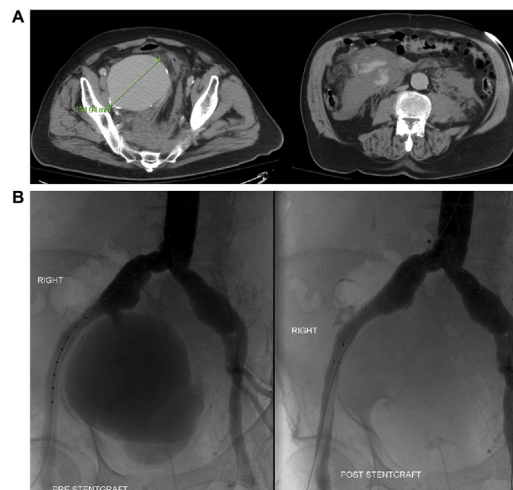
An 88-year-old man with hypertension, coronary artery disease, morbid obesity, and a remote history of a prior open abdominal aortic aneurysm repair with an infrarenal tube graft developed acute abdominal pain accompanied by dizziness after a bowel movement. He was taken to an outside hospital, where a computed tomography angiogram was obtained. This demonstrated a right internal iliac artery aneurysm measuring 11.4 cm with a large retroperitoneal rupture (A). He was transferred emergently to our tertiary referral center for repair. On arrival, he was pale and hypotensive. He initially refused intervention but subsequently agreed to an attempt at endovascular repair. Retrograde right common femoral access was obtained, and angiography demonstrated the large right internal iliac artery aneurysm. The right common iliac artery measured 22.8 mm, and the right external iliac artery measured 14.4 mm. Repair with a bifurcated endovascular aneurysm repair device was considered, although this would have been more time-consuming in the setting of hemorrhagic shock. A 27- × 16-mm Gore Contralateral Leg Endoprosthesis (W. L. Gore & Associates, Flagstaff, Ariz) provided excellent size match, but this device is designed for “large side down” deployment. Therefore, we proceeded to implant the device using the technique previously described by van der Steenhoven et al.¹ Briefly, this involves removing the device from its delivery shaft, reversing it, placing it within a sheath, and using a modified sheath dilator as a pushing device to position and deploy the limb with a “pin and pull” maneuver. This allowed rapid exclusion of the ruptured internal iliac artery aneurysm (B). The patient did well postoperatively and was discharged after a short stay.

This case illustrates that a knowledge of alternative techniques for endovascular device implantation can allow expeditious and effective emergency interventions. It also serves as a reminder that aneurysmal disease can be systemic and progressive and that repair of an infrarenal aneurysm does not protect against late rupture of other abnormal vessels. The patient's wife, who functioned as his durable power of attorney, provided consent for publication of this case report and associated images.

REFERENCE

1. van der Steenhoven TJ, Heyligers JM, Tielliu IF, Zeebregts CJ. The upside down Gore Excluder contralateral leg without extracorporeal predeployment for aortic or iliac aneurysm exclusion. *J Vasc Surg* 2011;53:1738-41.

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