Symptomatic, acute aortocaval fistula complicating an infrarenal aortic aneurysm

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An 84-year-old man presented with 2 weeks of worsening back pain. At the referring hospital, he was noted to have serum transaminase levels of 600 to 1000 U/L. An ultrasound scan to evaluate his gallbladder was interpreted as showing a 5- to 6-cm ruptured aneurysm of the abdominal aorta. He was transferred for management of the aortic aneurysm.

On arrival, he was hemodynamically stable, ashen, and anxious. His abdomen was nondistended and soft, with a massive, palpable aortic aneurysm. A computed tomography (CT) scan obtained to plan endovascular repair showed an aneurysm of the infrarenal aorta, 10 cm in diameter, with two channels of contrast and no evidence of rupture (A). There was early filling of the inferior vena cava.

The patient was taken urgently to the operating room for planned endovascular aortic reconstruction. The initial aortogram confirmed the presence of a large aortocaval fistula (B). The central venous pressure was 45 cm H₂O. Out of concern that flow would persist through the fistula if any endoleak occurred, and that outflow through the fistula would lead to increasing flow volumes in any endoleak, a decision was made to proceed with open repair.

The infrarenal aorta and iliac arteries were controlled. The aorta was opened, and the fistula controlled with the surgeon’s thumb and oversewn. The central venous pressure fell to 10 cm H₂O. The aorta was replaced with a 14- × 7-mm Dacron bifurcated graft. Subsequent reformatted images of the CT scan better delineated the fistula (C, Cover).

There were no postoperative complications. The patient was discharged to home on postoperative day 10. He continued to do well at 1 month.

DISCUSSION

Aortocaval fistula is reported to complicate 1% to 3% of aortic aneurysms.1,2 The correct diagnosis was made preoperatively in only 37% to 52% of reported cases.1-3 Although we proceeded with open repair out of concern for endoleak and persistence of the fistula, these concerns may be unfounded. Successful endovascular repair of abdominal aortic aneurysms associated with aortocaval fistulas has been reported in at least six cases.4-8

REFERENCES


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