Giant aneurysm of the abdominal aorta

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A 79-year-old man with a history of smoking, hypertension, chronic pulmonary disease, and nondisabling stroke was admitted to the emergency department due to loss of consciousness and diffuse abdominal pain. At admission, the patient was vigil but hypotensive (90/60 mm Hg) and tachycardic (107 bpm). Physical examination revealed a tender, pulsatile mass occupying the entire abdomen (A). His hemoglobin level was 6.5 g/dL. Computed tomographic angiography revealed a giant infrarenal aortic aneurysm with a maximum transverse diameter of 256 mm (B and C). A small layer of blood was visible in the left retroperitoneal space. Considerable displacement of the mesentery and left kidney was evident after postprocessing reconstruction (D).

Anatomic constraints, which included a severely angulated, wide conical infrarenal neck, tortuous iliac arteries, and wide aortic lumen, precluded endovascular repair. The patient underwent emergency open repair through a transperitoneal midline approach. Temporary supraceliac aortic clamping was necessary for proximal control. After evacuation of the aneurysm sac content, an inlay aorto—aortic Dacron graft reconstruction was performed (*E*). Despite prolonged hospitalization due to respiratory complications and transient renal deterioration, the patient was discharged home after 39 days.

The rupture risk of abdominal aortic aneurysms is intimately associated with the maximum diameter. However, other factors are known to influence the risk of rupture, and individual variability is considerable.1 Current recommendations advise repair for aneurysms >5.5 cm in diameter.² For aneurysms >6 cm, the annual rupture risk exceeds 14%.3 Therefore, it is rare to encounter very large aneurysms (>10 cm); most would have previously ruptured or undergone repair. Unidentified protective factors for rupture possibly may allow aneurysms to occasionally grow insidiously to extreme dimensions. Although open repair may present significant technical difficulties, endovascular repair with current endovascular devices is frequently impossible due to anatomic limitations. To our knowledge, this case represents the largest abdominal aortic aneurysm ever reported.

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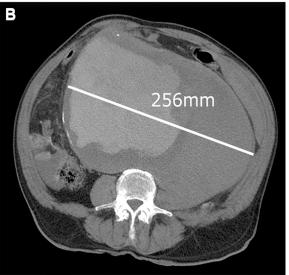
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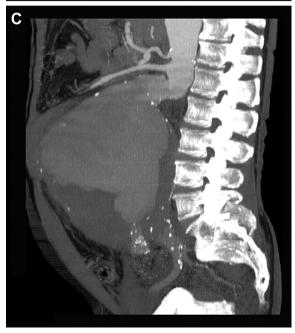
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