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Images in vascular medicine

Rapid expansion of an inflammatory abdominal aortic aneurysm

Martin Mory^a, Jochen Hansmann^b, Jens-Rainer Allenberg^a and Dittmar Boeckler^a

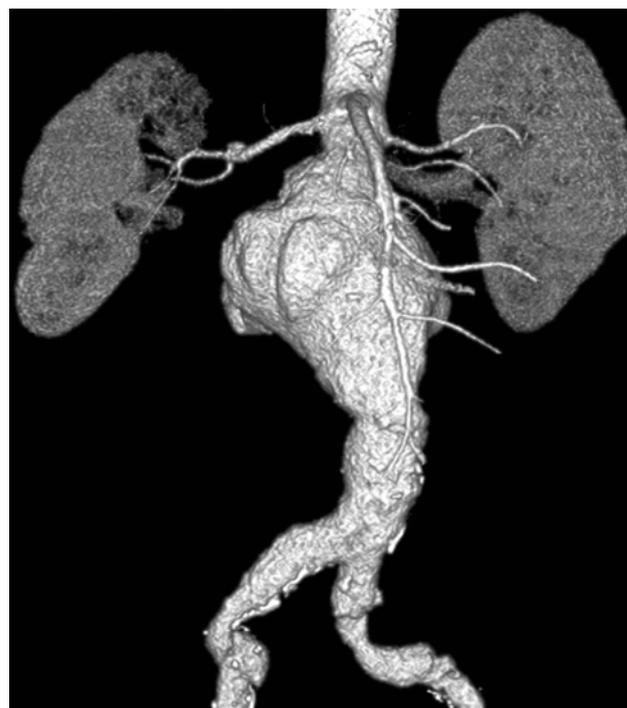
A 61-year-old patient was hospitalized for unclear abdominal pain, fever and cough for several days. A chest X-ray showed bilateral pneumonia. Further investigation, including computed tomography (CT), revealed an abdominal aortic aneurysm (AAA) with a maximum diameter of 42 mm and without signs of rupture (Panel A). The patient was treated with antibiotics for 8 days and the AAA was observed. The patient presented to the emergency room 3 weeks later with an acute

abdomen. A repeat CT scan demonstrated an increase in the size of the infrarenal AAA to a maximum diameter of 100 mm with signs of contained rupture (Panel B; Panel C, white arrow) and a large retroperitoneal hematoma. Immediate open surgery with insertion of a tube graft was performed. The intraoperative findings showed an inflamed, thickened wall of the aneurysm with contained ventrolateral rupture. The patient recovered uneventfully. Microbiological examination of the aortic wall was negative for organisms.

The growth rate of an AAA is reported to be 2.6 mm on average per year.¹ This case demonstrates that the rate of AAA expansion is not predictable and varies individually. Inflammation may influence this process and accelerates AAA expansion dramatically.² This may be correlated with specific cellular immune responses.^{3,4} In conclusion, ultrasound surveillance of small AAAs is mandatory and requires individualization with more



Panel A



Panel B

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Panel C

intensive follow-up for suspected inflammatory aneurysm.

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