

## Traumatic rupture of an excluded abdominal aortic aneurysm 2 years after endovascular aneurysm repair

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An endoleak is known to occur after endovascular aneurysm repair (EVAR). Endotension is defined as persistent or recurrent pressurization of an aneurysm sac after EVAR, without evidence of an endoleak.<sup>1</sup> Whether surgical or conservative treatment is the best approach for the treatment of endotension remains controversial.<sup>2</sup> For a rapidly expanding abdominal aortic aneurysm (AAA) without a clear endoleak, open surgery may be an option. However, a nonoperative approach has been suggested for clinically asymptomatic patients with aneurysm enlargement after EVAR if an endoleak is ruled out.<sup>3</sup> The diagnosis of endotension is difficult to make, but the fact that there were no clinical consequences of the rupture reinforces the diagnosis of endotension.

A 79-year-old man underwent EVAR for a 73-mm AAA at our hospital. A postoperative computed tomography (CT) scan revealed good graft positioning without any endoleak. (A). Two years postoperatively, a surveillance CT scan revealed an enlarged AAA (85 mm; B). One month afterwards, he was transferred to our hospital with complaints of abdominal pain. The patient had fallen and sustained abdominal trauma the previous day. A contrast-enhanced CT scan revealed a disruption of the aortic aneurysm's wall and a retroperitoneal hematoma at the 4 o'clock position (C/Cover); therefore, we made a diagnosis of traumatic AAA rupture. However, there was no endoleak or extravasation of contrast, so we suspected that endotension had caused enlargement of the AAA. He was not in shock and opted for conservative treatment. The patient was discharged in good condition after 12 days. Six months after the AAA rupture, a contrast-enhanced CT scan revealed a decrease in the diameter of the AAA (63 mm) and no endoleak or extravasation (D). The patient provided consent for the publication of this work.

### DISCUSSION

In this patient, endotension was considered to have caused enlargement of the AAA. The absence of an endoleak or extravasation on a CT scan after traumatic rupture of the AAA and the absence of clinical consequences of the rupture reinforced the diagnosis of endotension. We experienced a rare case of a traumatic excluded AAA rupture after EVAR that was managed conservatively with good outcomes.



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