

INVITED COMMENTARY

Commentary on ‘Obliterating Endo-aneurysmorrhaphy with Stent Graft Preservation for Treatment of Type II Progressive Endoleak’

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Nearly a quarter century after its introduction, and after 15 years of widespread use of endovascular aneurysm repair (EVAR) for the treatment of abdominal aortic aneurysm (AAA), the significance of type II endoleaks remains unclear. Although its true incidence is probably much higher than standard imaging is able to detect,¹ only a fraction of affected patients present with sac expansion.² Moreover, rupture caused solely by type II endoleaks is, at best, exceedingly rare, and growth may occur without visible endoleaks as well.² Characteristics of the feeding and outflow arteries, of flow patterns, and of the aneurysm wall may all influence sac behavior after implant, but accurate identification of threatening type II endoleaks is, to date, not realistic.

In the face of this uncertainty, the physician’s attitude ranges from no treatment irrespective of growth, selective treatment of type II endoleaks associated with growth, or treatment of all persistent type II endoleaks. In addition, catheter based strategies for treatment have high failure rates and are not exempt from potentially fatal complications.³ Even less consensus exists for diagnostic workup and management of growing aneurysms without visible endoleaks.

Maitrias et al.⁴ present an open alternative to conversion for patients with aneurysm expansion after EVAR, consisting of sacotomy, treatment of the identified cause of expansion (not necessarily always type II endoleaks) with graft preservation and without the mandatory need for extensive dissection and cross clamping. Their excellent results, if reproducible, may be adopted as a more definitive solution to post-implant growth with reasonable morbidity. Follow up needs to be longer, however, to draw definitive conclusions on efficacy. Other techniques, such as laparoscopic sac fenestration, were very promising alternatives for the same problem but failed to show durable results in the long term.⁵

Intra-operative findings and their correspondence to imaging is a very important aspect of this series, illustrating the current inaccuracy. In more than half the patients, more vessels were patent than seen on imaging. In one case (of 12) a type III endoleak was newly identified and in one case there was no endoleak and the cause of growth remained endotension. Interestingly, no “occult” type I endoleaks were revealed.

In conclusion, the proposed solution for post-implant aneurysm expansion with graft preservation is appealing and may result in a more definitive resolution of the underlying cause. If proven durable, it may preferred over less efficient percutaneous alternatives without the morbidity of endograft explantation.

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