

INVITED COMMENTARY

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The debate over how best to treat the internal iliac arteries (IIAs) during endovascular repair of aorto-iliac aneurysms is a long-standing one. In this article, the authors advocate an interesting strategy of simple coverage of the IIA with an endograft without embolization of the IIA beforehand. Their early and midterm (mean follow-up, 33 months) results with this practice are acceptable when compared to a control group of patients who underwent IIA coverage with coil embolization. No difference was reported between the two groups with regard to incidence of buttock claudication, endoleak rate, and rate of secondary interventions. This technique seems to simplify the aneurysm repair by shortening the procedure time and requiring less contrast administration and radiation, all of which is of potential great benefit to the patient. In fact, the authors make such a convincing case that this technique works so well, that after reading this article, one might find themselves asking, "Why would anyone ever embolize the IIA again?"

I would offer a word of caution when interpreting these very good results. This is not a practice that should be widely accepted and applied to all patients. In fact, the authors themselves state that indications for simple IIA coverage without embolization should only be performed in patients with an adequate sealing zone of at least 5 mm in the distal common iliac artery (proximal to the IIA and iliac bifurcation), a sealing "ring" in the distal common iliac artery, or an IIA <5 mm in diameter, and that the endograft should be oversized to the seal zone or "ring" by 15% to 20%. In other words, there must be apposition of the endograft to the distal common iliac artery and iliac bifurcation when the endograft is crossing and covering the IIA for this technique to be effective. Furthermore, they go on to concede that they do not recommend simple IIA coverage when there are large common iliac arteries

(>30 mm) and no seal zone. These are important points to keep in mind. Many patients with aorto-iliac aneurysms will not have iliac anatomy conducive to using this technique.

It should also be emphasized that even in patients with anatomy that meet the authors' criteria, this technique is not without risks and complications. Although, as the authors propose, in theory, there is the potential for a lower incidence of buttock claudication for simple IIA coverage compared to IIA embolization where branches of the IIA may be affected, this was not borne out in their results with an equal rate of buttock claudication in both groups (NE: 13% vs CE: 12%). However, the major concern over IIA coverage without embolization is not the possible sequelae of IIA occlusion (buttock claudication, gluteal necrosis) because that would happen with IIA embolization as well. The major concern is a type II endoleak in the setting of a common iliac artery aneurysm. In this series, the overall endoleak rate was 9% with 10 of the 112 patients in the NE group experiencing a type II endoleak. In 7 of these 10 patients, the type II endoleak originated from the covered IIA. This has the potential for disastrous consequences. In addition, all three of the aneurysm-related deaths in this series directly resulted from endoleak formation and subsequent aneurysm rupture.

I applaud the authors for thinking "outside of the box" in an attempt to find ways to simplify endovascular repair of aorto-iliac aneurysms while maintaining its safety and efficacy. Like all surgical treatment strategies, their results must be interpreted with caution before widespread acceptance and application. When confronted with various treatment options, it is often more important to select the appropriate patient for the treatment rather than the appropriate treatment for the patient.