the observed changes indicate inability to increase perfusion after stimulation

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REFERENCES


Regarding “Endograft limb occlusion and stenosis after ANCURE endovascular abdominal aneurysm repair”

We read with interest the article by Parent et al. We have currently performed 114 aortic endograft procedures, with the majority of these devices having a columnar support (Aneurx, 101; Ancure, 17). Unfortunately, supported grafts are not free of limb occlusions. We have currently noted two limb occlusions in the Aneurx device and three limb dysfunctions that required stenting to prevent occlusion (5%). Interestingly, both the Aneurx limb occlusions occurred in patients with extensions placed in the external iliac arteries after coiling of the internal iliac artery. Both Aneurx limb occlusions were treated with a femoral-to-femoral crossover graft. One patient died after the revascularization for limb occlusion (Fig 1).

Among a total of 17 Ancure devices implanted, we have had one total graft thrombosis and one limb dysfunction requiring

Fig 1. Aneurx graft in situ explant in patient with limb occlusion and death.

Fig 2. Explanted Ancure endograft reveals proximal neck angulation. Note presence of wallgrafts in limbs for added columnar support.
The patient with a complete graft thrombosis had a proximal 40-degree neck angulation and presented 4 months after graft implant with complete graft occlusion. After percutaneous thrombectomy with the Xpeedior catheter (Possis Medical, Minneapolis, Minn), intravascular ultrasound scan further confirmed the proximal neck angulation. Because the patient had no significant medical risk factors, we elected to explant the graft (Fig 2) instead of trying to straighten the proximal neck with a giant Palmaz stent. Despite the presence of attachment hooks, graft explant was surprisingly easy. Simple traction on the graft after suprarenal aortic control allowed graft removal. This may point to the fact that fixation achieved by hooks may not provide the stability offered by the open suture technique of a standard open repair.

During the same time period of aortic endograft repair of abdominal aortic aneurysm, we have performed 133 open repairs for aortic aneurysms. After discharge, not one of the open aneurysm patients required a graft thrombectomy or reintervention for limb dysfunction (P < .001). Secondary to our own experience and numerous reports of delayed complications from aortic endografts, we have reverted to offering endoluminal repairs only for patients with prohibitive medical risk factors for open surgery, the elderly, or patients with a hostile abdomen. We hoped this reversal to a less aggressive endovascular approach would help bring to an end the endoproblem! We thank the Norfolk Surgical Group for once again providing us with more interesting information on endoluminal aortic stent grafts.

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Reply
Thank you for your comments regarding our recent publication concerning aortic endograft limb dysfunction as well as contributing information of your experience with this problem in fully supported endografts. The potential association between limb dysfunction and coil embolization of an adjacent artery is interesting, may be unrelated to endograft design, and bears further study. It has not been our experience that the Ancure endohooks are easily extracted from aortic wall tissue. In each of two cases of endograft explantation, simple traction by itself was not effective as considerable deformity of the proximal attachment system was required to accomplish safe extraction. Perhaps a thrombosed endograft in a tortuous neck is a special circumstance. Finally, we continue to offer endovascular graft repair to aneurysm patients across the board, not only to the high-risk patients, provided the anatomic inclusion criteria are fully met, the patient agrees to comply with the follow-up imaging protocol, and there is an understanding that a subsequent intervention may be necessary in the future. We are not of the opinion that this is an aggressive approach.

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