A pain in the buttock: Iliac branch devices versus internal iliac artery embolization during elective infrarenal EVAR

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Background

Endovascular aortic aneurysm repair (EVAR) was first described by Parodi in 1991. Despite advances in technology and experience with EVAR aortoiliac disease still poses a challenge.

Dilatation of common iliac arteries (CIA) compromise the success of endovascular repair due to inadequate distal sealing. Traditionally this has been dealt with by embolizing one or both internal iliac arteries (IIA) and extension of the stent graft to the external iliac artery (EIA).

The sacrifice of the IIA can result in persistent buttock claudication, new onset erectile dysfunction and less frequently bowel or spinal ischaemia and sloughing of the scrotal skin.

Objective

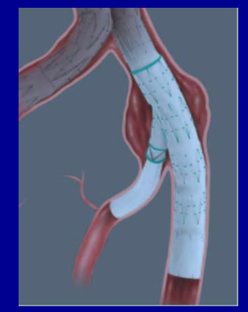
To compare outcomes in patients undergoing either Iliac Branch Device (IBD) insertion or internal iliac artery embolization as an adjunct procedure during elective endovascular abdominal aortic aneurysm repair.

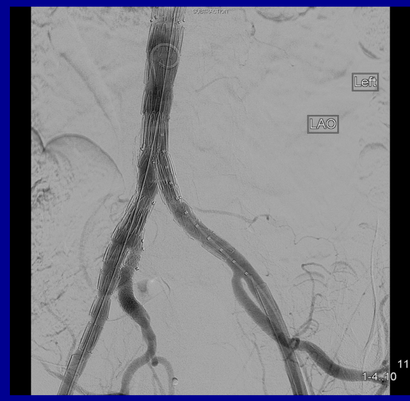
Methods

All patients undergoing elective infrarenal EVAR with internal iliac adjunct in a vascular centre over a 4-year period were identified from prospective local and national databases.

Case notes and procedural images were reviewed. Patients were contacted by telephone to assess post-operative symptoms and impact on quality of life.

Statistical analysis was with the Chi² test.





Results

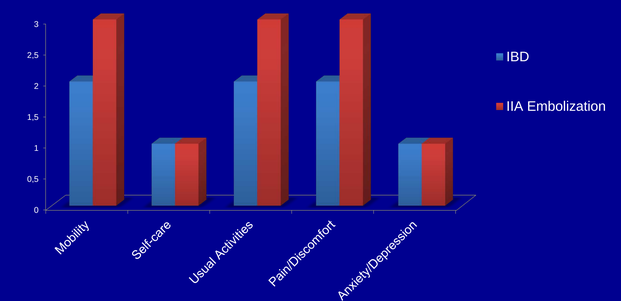
237 infrarenal EVARs were performed. 28 patients had adjunctive procedures to the iliac arteries.

12 patients had an IBD; 6 with contralateral embolization of IIA. 16 patients had IIA embolization only (8 left, 5 right, 3 bilateral)

Complication	Iliac Branch Device group	IIA Embolization group
Erectile dysfunction	0	4
Buttock claudication (ipsilateral)	1	8

Patients in the IBD group rated their overall health as being better than those patients in whom pelvic perfusion was sacrificed (76 v 68)

EQ5D Scores



Conclusions

Preservation of IIA patency with successful IBD reduces postoperative ipsilateral buttock claudication when compared with IIA occlusion. The incidence of erectile dysfunction may also be lowered.