Pre-emptive coil embolisation of the internal iliac artery during EVAR

There is no need!

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Disclosure

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I have the following potential conflicts of interest to report:

- Consulting and speakers fee
  - WL Gore & Associates
  - Medtronic
- Unrestricted research grants
  - Medtronic
  - Abbott Vascular
INTRODUCTION

20-30% of AAAs involve at least one CIA

Some require overstenting IIA with extension of the endograft in EIA
INTRODUCTION

Adequate distal seal
10-15 mm distal seal zone
max. 24 mm CIA diameter

Distal sealing zone difficulties
Short CIA
Aneurysmatic CIA close to IAA
Pelvic collateral circulation
Treatment options for CIA aneurysm

Open surgical repair

Hybrid techniques

Coil and/or cover

Endovascular techniques
Hybrid and endovascular techniques

It is a good alternative, but........

Not always so easy
Not minimal invasive
Coil and/or cover

ESVS Guidelines

Hypogastric embolisation is usually preferred over simple coverage of its ostium by the endograft to prevent the risk of a Type II endoleak, but coils should be placed as proximal as possible to spare the collateral circulation.

Level of recommendation: C
LOE: 4
Coil and/or cover

More proximal seal = better

- Theoretically stent coverage = most proximal seal = less complications

Challenging the evidence for pre-emptive coil embolisation of the IIA during EVAR

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Eur J Vasc Endovasc Surg. 2013 Mar; 45(3):220-6
IAA overstenting without coiling

Jan ‘10: New regime at our high-volume clinic
  - All EVARs with extension in EIA without coil embolization
IAA overstenting without coiling

32 IAAs stent covered
   All patent IAAs at pre-operative CTA
   No prior coil embolisation

2 cases with previous IAA coiling at contralateral side
2 cases with IBD at contralateral side

Follow-up
   Mean follow-up 14.3 months (± 7.4 months)
IAA overstenting without coiling

Buttock claudication
  14.3% mild, disappeared within 6 months
  6.5% severe, persistent mild at 12 and 18 months

No report of severe pelvic ischemia
No mortality due to/related to IAA coverage
No secondary procedures to secure IAA sealing
No significant Type II endoleak

- No aneurysm growth
- No IIA-related endoleaks
- No reintervention for IIA-related complications
Conclusion

It is always the best to preserve the hypogastric artery.

If it is decided to overstent the hypogastric artery, pre-emptive coil embolisatie is not mandatory.
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