AAA branch embolisation before EVAR
Seldom worth the effort and has downsides

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- Consultancy: Cook Medical
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- Lecture fees: Maquet, Covidien

Vanguard graft

CONTRAINDICATIONS
- Patients with an American Society for Anesthesiology (ASA) risk classification of IV who are poor candidates for conventional surgery
- Patients with only one patent internal iliac artery that requires reconstruction beyond it
- Patients with a patent inferior mesenteric artery
- Patients with an internal iliac artery involved in the aneurysm

Type II endoleak (arterial/dual phase CT)

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<th></th>
<th>Any time</th>
<th>Latest follow up</th>
<th>Total patients</th>
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<tbody>
<tr>
<td>Non-embolised</td>
<td>10 (23.2%)</td>
<td>4 (9.3%)</td>
<td>43</td>
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<tr>
<td>Embolised</td>
<td>4 (20%)</td>
<td>2 (10%)</td>
<td>20</td>
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Inferior Mesenteric Artery Embolization before Endovascular Repair of an Abdominal Aortic Aneurysm: Effect on Type II Endoleak and Aneurysm Shrinkage

- Reduced frequency of type 2, p=0.002
- No influence on aneurysm size
- No ruptures

JVIR 2010; 21:181-185
Results

Type 2 endoleak rate
- 18/69 (26%) pre-protocol
- 10/69 (14%) post-protocol
- P = 0.14
- 1 death in embolised group due to colonic ischaemia

Running conclusions
1. Does not reduce endoleak rate (Gould et al)
2. Reduces endoleak rate but no effect on aneurysm size (Nevala et al)
3. IMA embolisation correlates with sac shrinkage (Sheehan et al)
4. Does not reduce endoleak rate / mortality risk (Muthu et al)
5. May reduce endoleak rate (Zanchetta et al)
Preoperative Inferior Mesenteric Artery Embolization before Endovascular Aneurysm Repair: Decreased Incidence of Type II Endoleak and Aneurysm Sac Enlargement with 24-month Follow-up

Thomas J. Warden, MD, Stuart Cohen, MD, Edward A. Fischman, MD, David K. Ehrlich, MD, and Robert A. Cookston, MD

In conclusion, preoperative IMA embolization in patients with a patent IMA is a safe and technically feasible procedure. In our experience, preoperative embolization of the IMA was associated with reduced incidences of type II endoleak, aneurysm sac volume enlargement at 24 months, and secondary interventions.

Type II endoleak prevention with coil embolization during endovascular aneurysm repair in high-risk patients

Dominique Eben, MD, Elsa Ddah, MD, Philippe Scion, MD, Sarah Hanad, MD, Abdou Messa, MD, Zuhail Massou, MD, Jean-Francois Breguet, MD, and Christophe Angeli, MD

- Euro 1390 per patient
- Median of 3.15m of coils
- Post-op CT technique – arterial phase only? (not stated)
- Unenhanced Ultrasound

Outcomes of endovascular aneurysm repair with contemporary volume-dependent sac embolization in patients at risk for endoleak type II

Michele Pana, MD, Francesco Speranza, MD, Massimo Zanatta, MD, Marco Moneta, MD, Joseph I. Brotto, MD, Stefano Ippoliti, MD, Franco Gerges, MD, and Michelle Antonetti, MD

- Randomised to EVAR or embo-EVAR
- Fibrin glue and coils – guided by aneurysm volume
- NO difference in endoleak rate at 24 months
- More reinterventions for type 2 in EVAR group

Thirty-day results of the Nellix System investigational device exemption pivotal trial for endovascular aneurysm sealing

Jeffrey P. Carpenter, MD, Robert Cuff, MD, Christopher Hing, MD, Seidou Mammadov, MD, Michael P. J. Reddy, MD, Jose Fran, MD, and Helmais Bickel, MD

8 type 2 endoleaks in 150 patients
30 day CT
Conclusions

Time
Cost
Radiation
Mortality risk

Pre-operative embolisation is most probably neither effective nor necessary
No evidence that pre-op embolisation reduces the risk of aneurysm rupture

Conclusion

Seldom worth the effort and has downsides