Intra-procedural and Post-procedural Perigraft Arterial Sac Embolization (PASE) for Treatment of Endoleaks: How to do it and Results

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Endoleaks

• Occur in 15-20% of patients after EVAR
• Can lead to aneurysm growth and rupture
• Increase cost of care
• Treatment involves additional interventions which is associated with long term morbidity
• Treatment with coils and or Onix® affects imaging needed for subsequent follow up

Completion angiogram post graft deployment

Bent wire rotation and cuff deployment

Disclosures

• Speaker/consultant
  W.L. Gore
  Endologix
  Medtronic

Angiogram post cuff deployment
Intra-aneurysm injection

Post op CT after Proximal Cuff and Induced AAA Thrombosis

Catheter access to AAA Sac:

• Can be done after graft deployment between native iliac and endograft iliac limb
  - angled catheter and glidewire
  - risk of dissection/perforation

• Before endograft deployment
  - Requires parallel catheter for dual access and limb deployment

Should it be routine???
Induced Sac Thrombosis:

- Thrombin/Gelfoam Slurry to prevent thrombin “leak”
  - 5000u (5cc) in 20 cc saline and 3 cc contrast
  - Inject 10-15 cc with 5cc syringe
  - Potential risk of lumbar and/or IMA distal thrombosis

- 13 patients – 5 at implantation, 8 during F/u
- Endoleaks – 7 type I, 5 type II
- One type I endoleak was type IV on conversion
- No complications
- All type I endoleaks resolved; AAA stable or smaller on f/u (6-22 months)
- One type II leak persists with stable AAA

Type I endoleak not resolved with PASE

Intraprocedural and postprocedural perigraft arterial sac embolization (PASE) for endoleak treatment:

- 19 patients – 8 at implantation, 11 during F/u
- Endoleaks – 11 type I; 8 type II; 1 undetermined
- One type I endoleak was type IV on conversion
- No complications
- All but one (10 of 11) type I endoleaks resolved; AAA stable or smaller on f/u (3-40 months)
- One type II leak persists with stable AAA

Type 4 endoleak not resolved with PASE

A Temporary Catheter in the AAA Sac after EVAR Permits Diagnosis and Treatment of Type I and II Endoleaks

Induced thrombosis of the aneurysm sac provides durable resolution of most endoleaks
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