Relining technique for continuous sac enlargement and modular disconnection secondary to endotension after EVAR

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Disclosure

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I do not have any potential conflict of interest
Case

Male/81

EVAR (2007)

Complaint: Non-decreasing, palpable AAA
Mild abdominal pain
Initial CT(2007)

AAA (6.7 cm) and bilateral CIA aneurysm (Rt: 26mm, Lt: 24mm)
Neck angle: 50°  Neck length: 18mm  Neck diameter: 23mm
EVAR (2007)

- Both IIA embolization (2kws ago)
- Zenith (Main body 28mm)
- No endoleak
During follow-up

- Gradually increasing the size of aneurysm sac after EVAR
- No endoleak on CT
Increased size of aneurysm cavity (diameter: 9.7 cm)
No endoleak on CT
The patient said, “Why My Sac is Growing?”

- What would you say to him?
- How would you manage this problem?
Endotension

- Still unclear
- Presence of unrecognized endoleak (under resolution of imaging method)
- Transmission of pressure through thrombus or stent graft
- Increasing permeability of covering materials of graft with progressive accumulation of transudate
- Increased fibrinolysis inside the aneurysm sac
Endotension

Management?

• Surgical revision
• Percutaneous management

(Percutaneous aspiration, Cerna M, *J Vasc Surg* 2009:648
CT-guide translumbar aspiration

400 cc was aspirated
Before and After Sac aspiration

After sac aspiration
Abdominal pain is subsided, no more palpable mass
F/U Angio-CT
1 month after aspiration

Re-increased size of aneurysm cavity (9.7 cm) without endoleaks.
What is your **plan B**?

- **Open surgery?**
  - Replacement of graft
  - Open decompression

- **Re-intervention?**
  - Re-Lining within previous graft
Relining strategy

The effect of endograft relining on sac expansion after endovascular aneurysm repair with the original-permeability Gore Excluder abdominal aortic aneurysm endoprosthesis

*Journal of Vascular Surgery Volume 45, Issue 4, April 2007*
Relining (2012)
(1 month after sac aspiration)

What happened?
Unnoticed modular migration

Just after EVAR,

Just before aspiration,
Relining of Stent-graft
(a pair of 14mm x 12cm iliac limbs)
Final angiography

Bilateral iliac limb relining.

No endoleak on angiogram.
The F/U CT
(2015-01) 2.5 yrs after Re-lining

S/P EVAR and relining with endotension and type III endoleak

Decreased size of aneurysmal sac
(9.6cm -> 8.2cm)

No endoleak
The last F/U CT
(2016-04) 41 months after Re-lining

Decreased size of aneurysmal sac
(9.6cm -> 7.2cm)
Thank you for your attention
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