Diagnosis and treatment of type 3b endoleak

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Implant Degradation and Poor Healing After Endovascular Repair of Abdominal Aortic Aneurysms: An Analysis of Explanted Stent-Grafts

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Figure 2 ◆ Graft alterations observed on explanted stent-grafts. (A) Broken struts protruded through the graft in a Vanguard specimen. Holes in a Vanguard fabric (B) and in a Talent monofilament fabric (C), which led to type III endoleaks in vivo (case 6).

J ENDOVASC THER
2006;13:457–467
Conclusion

The shape of the supporting stents in the metallic frame of stent-grafts must be seriously revisited to determine how to prevent the penetration of any sharp apex through the fabric wall. The ringed stents thus far have proved to be much safer. Continuous
Case 1

Max diameter

- CEUS – type 2
- CEUS – type 3

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Case 2

Max diameter

CEUS – no endoleak

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Type 3b endoleak with the Endurant graft: J Endovasc Ther. 2016 Feb;23(1):229-32
Type 3b endoleak with the Endurant graft: J Endovasc Ther. 2016 Feb;23(1):229-32

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Type 3b endoleak with the Endurant graft: J Endovasc Ther. 2016 Feb;23(1):229-32
Case 3

Max diameter

![Graph showing max diameter from 2011 to 2015 with data points for each year.](image-url)
Aorta
Case 4

• Empirical relining
Empirical relining

- 89 yr old
- Type 2 endoleak from first imaging
- 6.1-8.4cm over 6 years
- 2012 – CEUS type 2
- 2015 – CEUS 2-3 second delay
- Relined with Nellix 2015
- No growth over 7 months
Max diameter

- CEUS – type 2
- CEUS – ? Type 3

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Conclusion

Aetiology

- Stent apex – fabric interaction

Diagnosis

- Difficult/intermittent?
- CEUS/US/CECT
- Limitations and benefits of angiography
Conclusion

Treatment

- Focal or diffuse fabric degradation
- Focal or diffuse treatment
- Reline with EVAR/EVAS
- Focal treatment with ASD closure device (off-label)
- Empirical