

Aortic Endovascular Stent Graft Surveillance: Case Review

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Disclosures

None

Case Review

- *Know the graft/anatomy history*
- *Use ultrasound, CTA, and arteriography to understand etiology of the endoleak*
- *Review images with the tech, particularly if findings will change your management*

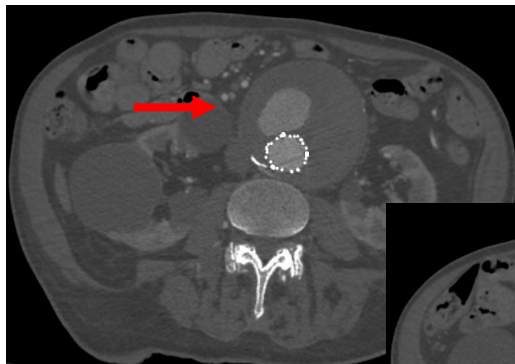
Case 1

- *83 y/o male with OSH EVAR with AFX stent graft placed 5 years prior*

Surveillance Duplex



CTA



OR – Graft Reline



Case 2

- ***85 y/o male with h/o Gore Excluder for 5.5cm aneurysm***
 - 1-month duplex US demonstrated no endoleak with stable sac size
 - 1-year duplex US demonstrated sac growth to 5.7x6.3cm with endoleak

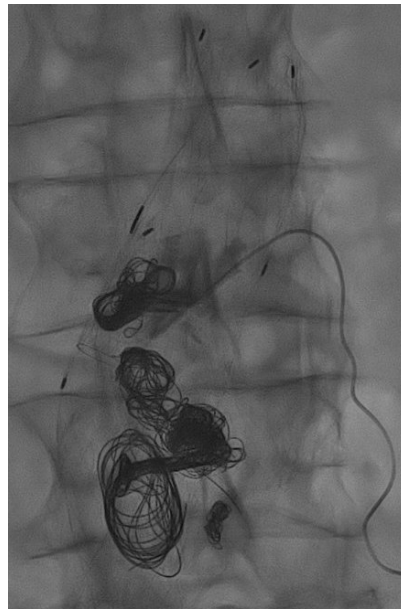
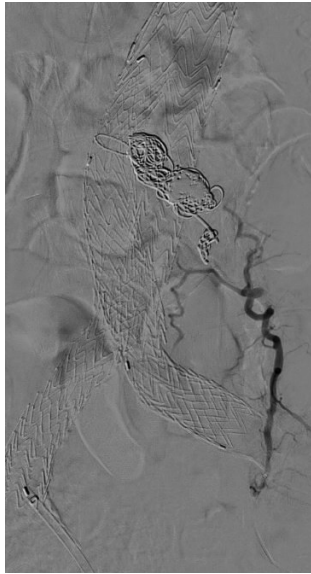
Duplex



Subsequent CTA

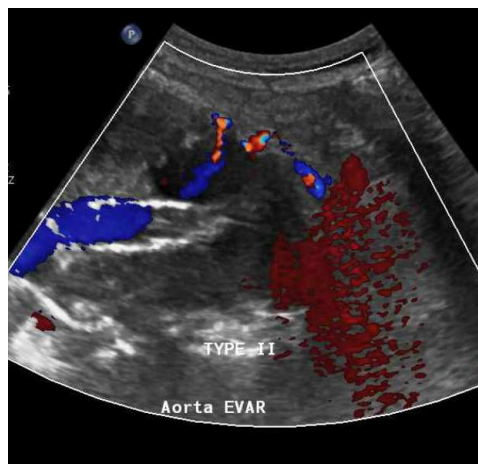


Angiogram



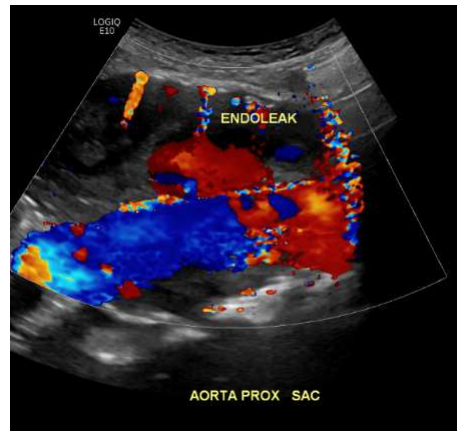
Subsequent Duplex

- ***6 month following coiling – AAA 7.2x7.1cm, persistent leak***



Another Duplex

- *6 months later – AAA 7.6x8.1cm, persistent leak*



Another 6 months

- *Another duplex, another intervention*
- *Sac still growing*
- *NEXT STEPS?*

Take Home Points

- *Be suspicious in cases of going sac growth despite Type II endoleak treatment for an occult Type I*
- *The endoleak you see on ultrasound may not be the culprit for aneurysm sac growth*
- *CT and angiogram may not visualize the leak*
- *May need to consider open conversion*

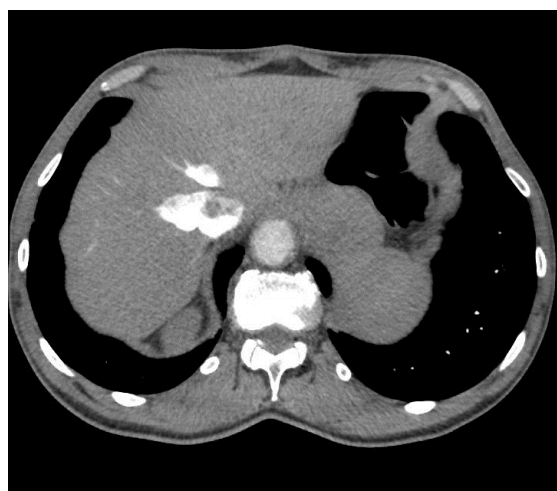
Case 3

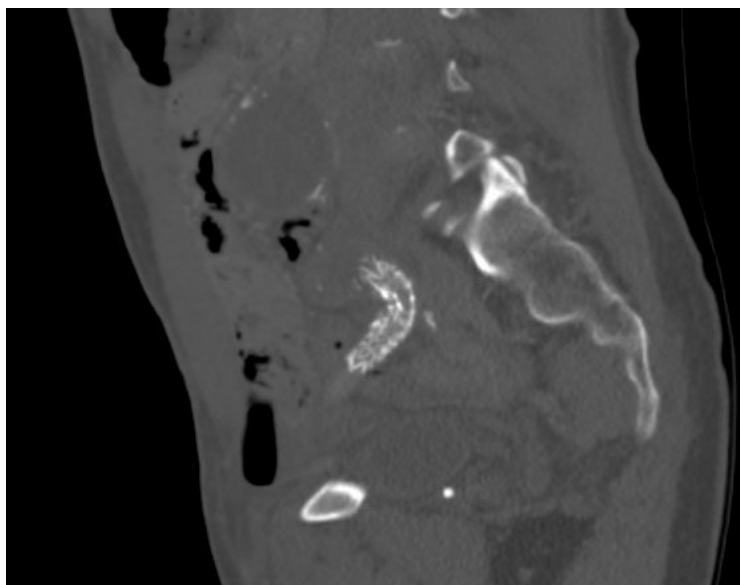
- *68 y/o male with incidental finding of 5.1cm AAA with 3.5cm left iliac aneurysm treated with Gore Excluder*

Preop CTA

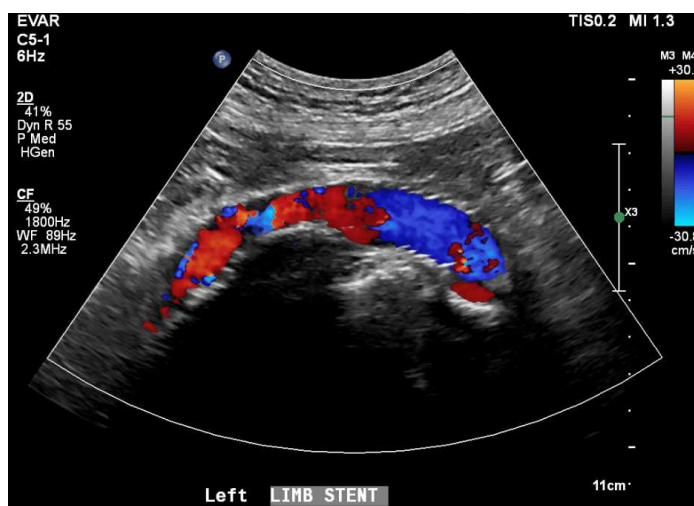


Post-op CTA





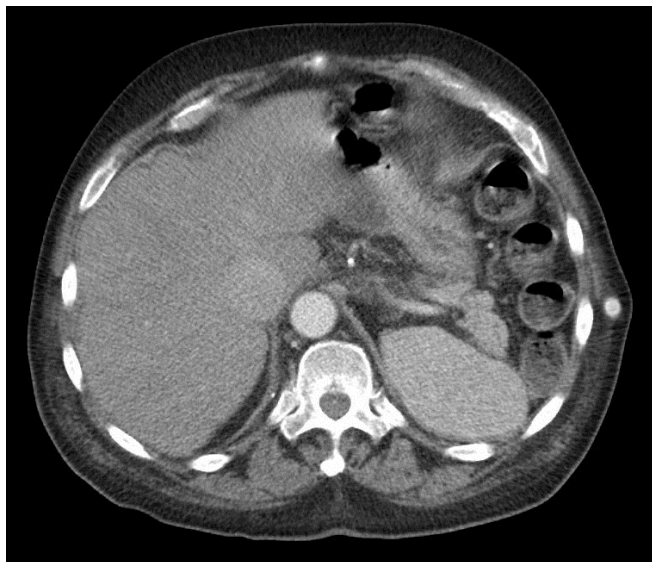
Duplex



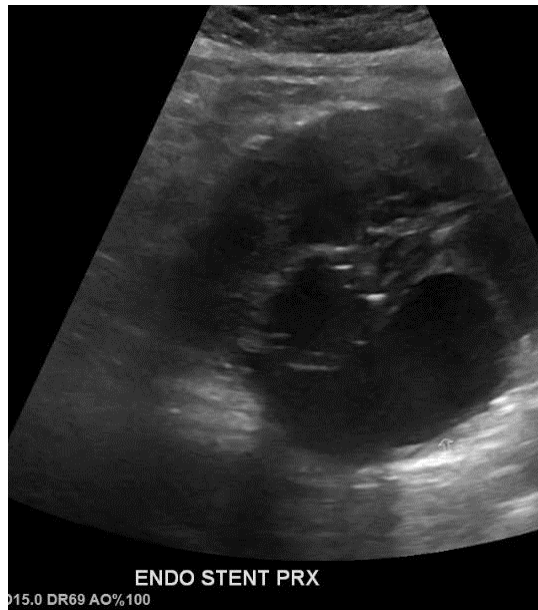
Case 4

- ***87 y/o male who presented with L flank pain and 10cm aneurysm and Type Ia endoleak***
 - PMH: CKD Stage 3, HLD, HLD, CM with LVEF 27% s/p ICD placement, flutter s/p Watchman device placement
 - EVAR History
 - 2009 Talent graft placed at OSH
 - 2014 coil embolization of Type II endoleak in setting of sac growth
 - Continued sac growth with subsequent graft relining with aorto-uni and L axillary to femoral bypass

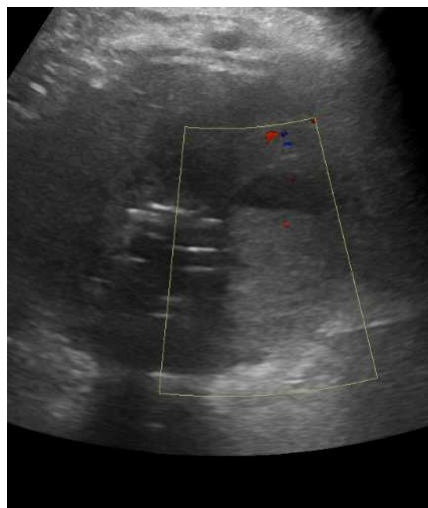
CTA



Duplex US



OR – Ballooning of Proximal Endograft with Placement of Endoanchors



Follow Up Ultrasound Imaging

- ***Stable aneurysm sac size at 2 year follow up with no evidence of endoleak***

Take Home Points

- ***Beware of new endoleaks***
- ***Large degree of sac growth usually not a Type II***
- ***Not all endoleaks can be readily seen with duplex, CTA, or angiogram***
- ***Consider the anatomy and history of the graft***
- ***Don't blindly trust your US tech – work with them!***
- ***Utilize multiple modalities to understand from where an endoleak may be originating***