Duplex Imaging is the best surveillance method after EVAR with chimney grafts

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Disclosure

• Consultant – Boston Scientific, Cook, Medtronic, WL Gore, and Trivascular

EVAR Surveillance

• Less and less
• Expense of CT
• Risk of CT
• Overall complication rate

ChEVAR

• Complex anatomy
• Off the shelf availability
• Off-label

“CDU only surveillance post-EVAR is safe and can be initiated early in patients with shrinking or stable aneurysms. This policy should result in cost savings advantage and avoid the complications associated with CT.”
502/517 had no evidence of a type 1a endoleak (97.1% success rate)

Develop Surveillance Paradigm

- Balance risk of imaging compared to risk of failure of device
- 30-day CT scan
  - Cross-sectional
  - Reconstruction imaging

Develop Surveillance Paradigm

- Balance risk of imaging compared to risk of failure of device
- 30-day CT scan
- Drawing for Vascular Lab
Develop Surveillance Paradigm

- Balance risk of imaging compared to risk of failure of device
- 30-day CT scan
- Drawing for Vascular Lab
- Dedicated ultrasound evaluation
  - Renal artery ultrasound
  - Aortic ultrasound

Renal Artery Velocities

- Similar to carotid stenting (elevated compared to no stent)
- Highly variable – does not seem to correlate with angulation of stent
- Follow after baseline established
- One occluded stent (seen on 30-day CTA)
- >70 are patent
Develop Surveillance Paradigm

- Balance risk of imaging compared to risk of failure of device
- 30-day CT scan
- Drawing for Vascular Lab
- Dedicated ultrasound evaluation
- KUB imaging

When is it not good?

- Very complex endovascular procedures

Conclusions

- Minimizing risk of surveillance is key!
- 30-day CTA (based on contrast use)
- Educate vascular lab techs
- Dedicated renal and aortic u/s
- Learn the velocities in your lab