What Is a Proximal Landing Zone In the Thoracic Aorta?

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"A good Landing Zone provides a Secure Seal and Fixation For a Thoracic Stentgraft both Short and Long-Term"

What Do We Want In A Landing Zone?

Seal

-Pathology Dependent?

Fixation

-Pathology Dependent?

What Do We Want In a Landing Zone?

- Accessible
- Anatomically Stable
 - Straight?
 - Parallell wall
 - Long Enough
- Healthy Tissue
 - Non aneursmal
 - Non Dissected?
 - Normal Connective Tissue?



Testing to avoid failure of the endograft and repair

<u>ISO 25539-1 Cardiovascular implants –</u> <u>Endovascular devices</u>

- Delivery
- Implant
- Transportation



To what limits is a device tested?



Predict

Andres Scha

Backgroundwith endoy: patient sele compliance post-EVAR Methods and 1 the M2S, In for each pa morphologi guidelines a enlargemen below the 5 that met the instructions enlargement h iliac artery diam.

31% didn't meet 'the most liberal IFU' 41% sac enlargement at 5 years Predictors: Age

Vascular Medicine

10,228 patients

59% <55mm diameter

Endoleak

Adverse neck/iliac anatomy

gement

inson, MD;

are performed or appropriate We evaluated anatomy and

lentified from vere reviewed le. Therefore, hed anatomic 'AR AAA sac AA diameter had anatomy tion of device rs of AAA sac

Conclusion—In this multicenter observational study, compliance with EVAR device guidennes was low and post-EVAR aneurysm sac enlargement was high, raising concern for long-term risk of aneurysm rupture. (*Circulation.* 2011;123:2848-2855.)

Schanzer et al. Circulation. 2011; 123(24):2848-55.

Sobocinski et al BJS Jan 2016

- M2S data
 - 899 TEVAR patients
 - Mean FU 2years
- Sac Expansion Significantly Higher if
 - Neck > 38mm diameter
 - Neck < 20mm lenght</p>
 - Sac Expansion more common the more risk factors present

Why Cover LSA?

- Poor proximal landing zone in DTA
- Angulated Aortic Arch
 - Bird Beak
 - Endoleak
 - Collaps

40% of TEVAR pts

Ueda et al Radiology 2010 255;2:645-52



Collaps

- Poor conformability on inner curve
- Reported with all grafts
- Often Early Phenomenon



Reaching a Good Landing Zone

- Proximal bare spring
 - Allows coverage of branches
 - Provides alignment of the proximal sealing stent
- Debranching of cervical vessels
 - Hybrid repair
 - Branch devices
 - Chimney Technique
 - In Situ Fenestration

Allows the Stentgraft to be moved more proximal to overcome Landing in a sharp curve











PRIMUS 9/37 - 12 MM PTA

LUMINEXX 12/40

GORE TAG 31/150 MM

PRIMUS 9/37 - 12 MM PTA

LUMINEXX 12/40

GORE TAG 31/150 MM



Summary

- Good Landing Zone Critical for Good Outcome
- 40% Have Landing Zone Involving Neck Vessels
- Several Techniques Available to preserve flow in Neck Vessels

No Compromise!