Tips And Tricks To Use EndoAnchors Optimally and Avoid Failures

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Defining the Challenging Aortic Neck:
Factors predicting Type I endoleak

- Short (< 10 mm)
- Wide (>30 mm)
- Angulated (>60°)
- Conical
- Thrombus
- Calcification

Endovascular Management of Challenging Aortic Neck:
How to prevent complications?

Endovascular Management of Challenging Aortic Neck:
f-EVAR and Ch-EVAR

Endovascular Fixation of Aortic Endografts:
Heli-FX EndoAnchor System

Disclosures

Speaker name:
Giovanni Pratesi

I have the following potential conflicts of interest to report:

- Consulting: Abbott, Cook, Cordis, Medtronic, WL Gore & Associates
- Employment in industry
- Shareholder of a healthcare company
- Owner of a healthcare company
- Other(s)

✓ I do not have any potential conflict of interest
**Heli-FX EndoAnchor System:**

**Therapeutic use**

- Endovascular suture of the endograft similar to a surgical anastomosis
- No additional access/techniques required
- Infrarenal sealing maintenance
- Visceral vessels are not involved
- Does not prevent any future option (Ch-EVAR, f-EVAR)

**ESAR (EndoSuture Aneurysm Repair)**

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**Tips And Tricks To Use EndoAnchors Optimally:**

**Patient selection**

- **NEED FOR A CIRCUNFERENTIAL NECK > 4 mm**

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**Patient selection for primary use of Heli-FX EndoAnchor:**

- **Short neck (10 mm down to 4 mm)**

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**Patient selection for primary use of Heli-FX EndoAnchor:**

- **Angulated aortic neck**

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**Patient selection for primary use of Heli-FX EndoAnchor:**

- **Wide aortic neck**
Increased Rate of Sac Regression in Propensity-Matched Cohorts

In a propensity-matched study design, significantly greater AAA sac regression with EndoAnchor fixation at 2 years post-EVAR (81.1% vs. 48.7% without EndoAnchor fixation, p=.01)

Methodology
- Pre-EVAR CTs core lab evaluated
- Propensity matching on 19 variables
- 2 cohorts:
  - 99 pts EVAR
  - 99 pts EVAR+EndoAnchor

Tips And Tricks To Use EndoAnchors Optimally:
- When not to use
  - No neck, thick thrombus, Ca++, large gap

Tips And Tricks To Use EndoAnchors Optimally:
- Precise endograft deployment

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- Precise endograft deployment
### Tips And Tricks To Use EndoAnchors Optimally:

- **Fix endograft at the proximal edge**

  **Endoanchors MUST penetrate aortic neck**

### Tips And Tricks To Avoid Endoanchors Failures:

- **How to manage a floating EndoAnchor**

### Increased Precision in Endovascular Fixation:

- **Fusion-guided Heli-FX EndoAnchor deployment**

1. Plan
2. Fuse
3. Scan
Conclusions

- Endovascular fixation is effective in preventing proximal Type I endoleaks in selected challenging neck anatomy AAA
- Meticulous planning and advanced intraoperative imaging are crucial for technical success in very short proximal aortic neck
- ESAR (EndoSuture Aneurysm Repair) could represents an alternative to 2 fenestrations f-EVAR in selected juxtarenal AAA