How to overcome obstacles in treating chronic aortic dissections?

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Disclosures

I have the following potential conflicts of interest to report:

Educational Program    W.L Gore & Associates
Stockholder            LeMaitre
Co-founder              Meliora-Vision
Anatomical problems to overcome

- Multiple entries/reentries
- Small TL/large FL
- Rigid membrane
- Branches take off from TL and FL
- The length of the disease
- Proper landing zones
Procedural risk

- Long procedural time
- Spinal core ischemia
- Cerebral infarction
- Access bleeding
Main strategies

• Exclusion of FL aneurysm with SG
• Embolization techniques of FL
• Combination of endo techniques
• Hybrid or no-hybrid strategi
Elephant trunk
Staging of endovascular procedure
Branch vessels from FL
Stable position in FL
Access to target vessel
True lumen can expand
Proximal access route

• Keep at least one route open!!
• Chimney (periscope) technique can be used
Transfemoral LSA Periscope
- 11mmx10cm and
- 13mmx5cm distally to seal LSA

With courtesy: Mario Lachat
Angio-early with filling of debranched vessels
Angio-late with filling of the periscope
How to find distal landing zones?
......and preserve circulation through the hypogastric arteries?
IBD + FL embolization
Problems related to the length of the disease and branches taking off from TL and FL

- More fabrics increase risk of spinal ischemia
- FL – maybe not a problem
Chronic type A dissection with aneurysm

- Already hybrid surgery and debranching in the arch and a periscope to left subclavian
Chronic type A dissection with aneurysm

- Left renal takes off from FL.
- Other branches from TL
Chronic type A dissection with aneurysm

- Dissection extends to left common iliac. Right iliac is TL
Value of false lumen (FL)

Periscope to left renal using FL in the iliac artery

Femoro-femoral bypass

With courtesy: Mario Lachat
Value of a subclavian periscope

EVAR with contralateral left limb inserted in the hypogastic artery through the periscope

With courtesy: Mario Lachat
3 fenestrations identified on CTA
The major one corresponds to the left renal ostium
Onyx embolisation in FL
Amplatzer Plug (Nitinol)
Plug in position before release
Plug in position after release
Stentgraft extension to cover two small fenestrations
Retrograde filling of FL
Pillow AAA occlusion device
Conclusions

• Staging of the procedure to reduce risk
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• Fenestrated stentgrafts are normally working
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- FL of value for stentgraft placement
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• Fenestrated stentgrafts are normally working
• FL embolization techniques as plugs and polymers seem to have a role
• FL of value for stentgraft placement
• A lot of off-label use is necessary
Thank you
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