Long-Term Results (>4 Years) Of Parallel Grafts (Chimneys And Perisopes) For Aortic Arch Lesions; Tips To Make Them Work And When Do They

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Disclosure

- Speaker name: Mario Louis LACHAT
- No disclosures

2003: first chimney in aortic arch

Literature review (2019) Aortic Arch Repair

Mean FUP of 24 months

Median FUP of 36 months
Mid to Long-term results (Zürich experience)

- From October 2009 to May 2014
- 41 patients (13 female: 31%)
- Mean age 68 years (27-87; SD 13)

Mean FUP 42 months (SD 28; 0-109)

Reinterventions during FUP 42 months (SD 28; 0-109)

11/41 (27%)
Most reintervention during first year

- 2x coil embolization (Ia/Ib)
- 2x CPG extension
- 2x distal TEVAR relining/extension
- 1x stenting LSA PG
- 1x correction of PG inflow
- 1x TAVI (pre-defined strategy), 2x HR (ascending repl. + SA rerouting + TEVAR zone 0)

Aneurysm behavior during FUP

Maximal Transverse Aneurysm Diameter
- Preoperative 61,38 (26-100; SD:17) mm
- Postoperative 55,84 (26-94,00; SD:16) mm
  - 9.02% reduction P<.001

Mean Aneurysm Volume
- Preoperative 416 (SD 531, 43-2670) ml
- Postoperative 324 (SD 381, 26-2026) ml
  - 22% reduction P .042

Best case
- Ascending graft (post repair), or post wrapping
- Native aorta w. diameter ≤38mm
- Landing zone lenght ≥3cm
- One chimney configuration
  - Ex. Combined with Periscope and/or debranching rerouting

T&T GW looping technique

Terumo 400cm 6Fr 45cm sheath

Facilitates SG introduction:
- Pulling up SG into the arch
- Pushing/pulling on GW end allow fine tuning of the SG position
- Guide wire end never free to perforate LV

Once SG is in ideal position, eventually chimney can be introduced over axillary end of the GW
T&T GW

PG size and number matters!

Options for LCCA

mBEVAR feasibility: 7% of all TAR

Most common exclusion for endovascular repair is excessively large ascending aortic diameter!
High shear stress in enlarged Aorta

Epiaortic wrap (Prolen mesh)

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Unsolved issue with PG-(T)EVAR

Gutter endoleak with Ch-EVAR (5-10%)

• Mostly unpredictable
• Need for dedicated anti-gutter stentgraft design
• Solution(s) emerging!

Anti-gutter solution

Conclusions

Arch PG-TEVAR show stable outcomes up to 4 years mean follow-up

• Taking into account "substantial" number of reinterventions to maintain seal and/or branch patency

Parallel grafts are useful

• Valuable option for non-elective cases or when anatomy doesn’t fit regular BEVAR/FEVAR
  • Straight forward approach
  • Off-the-shelf customization

Sandwich Technique for Endovascular Repair of Acute Type A Aortic Dissection

Peng Gan, MD,1 Qion Zeng, MD,1 Pangping Lin, MD,1 and Xuehu Gu, MD,1

N=12
30-day mortality; 10%
Parallel grafts are useful

• Valuable option for non-elective cases or when anatomy doesn’t fit regular BEVAR/FEVAR
  • Straight forward approach
  • Off-the-shelf customization

• Valuable in combination with debranching

• They should be part of our armamentarium for selected patients

Thank You!

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