How To Make Chimney And Sandwich Grafts Work For Treatment Of Aortic Arch Lesions: Technical Tips, Precautions And Midterm Results

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Methods

- In our institution, a prospective study was conducted of all consecutive patients undergoing endovascular repair of complex aortic arch aneurysms (zone 0) from October 2010 to May 2017. 20 patients (18 men and 2 woman; mean age, 60.4 ± 10.1 years) with aortic arch aneurysm underwent Total Endovascular Aortic Arch Repair with the Sandwich Technique/Chimney.

Results

- Late Endoleak Rate (10%):
  - One type III. It were effectively treated with a second thoracic stent graft deployed after three months.
  - One type II.

- The Mean Follow-up Period: 19.4 ± 8.3 months
- Primary SAT Patency Rate: 91% (33/33)
- 30-Day Endoleak Rate (20%):
  - Two type I: It was successfully managed during the procedure with the deployment of a thoracic endograft.
  - Two type II: It sealed spontaneously after a 30-day CT scan.

- There were four late deaths (≥30 days) in our series (20%)
  - One procedure-related (5%): Previous aortoesophageal fistula died from pulmonary complications 4 months postprocedure and.
  - Three non-procedure-related (15%):
    - One died during attempted elective TAA repair after 6 months.
    - One died from complications related to an ischemic myocardial infarction after one year.
    - One died related a lung cancer
Results

- After 18-month FU: Complete AS exclusion 90%
- No Conversion Rate
- No Spinal Cord Ischemia Rate
- Stroke/TIA Rate
  - Minor Stroke (5%): Complete recovered in 2 days

Conclusion

- TAAER with the ST is an effective technique with satisfactory early and midterm results.
- This technique could be an attractive alternative to conventional total arch replacement.
- More experience with the method is warranted.