Redo procedures for aortic arch lesions: when open, when endo?

Disclosures

- None

Open arch reconstruction in the endovascular era: Analysis of 721 patients over 17 years

- 721 open arch repair (HCA)
- Extended arch repair in 43%
- Retrograde/antegrade perfusion
- 30 day mortality 5%
- Stroke 4.7%
- 10 year survival 65%


Aortic arch and frozen elephant trunk

- 17 studies, 1,675 patients
- Acute (51.9%) and chronic (21.1%) type A
- Acute (2.4%) and chronic (3.1%) type B
- Aneurysm 19.1%
- Pooled mortality 8.3%
- Stroke 4.9%, spinal cord injury 5.1%
- 5 year survival 63-88%

A systematic review and meta-analysis on the safety and efficacy of the frozen elephant trunk technique in aortic arch surgery

- 1196 open arch procedures
- 64 hybrid arch procedures

Hybrid patients older and higher risk

Neurologic outcome similar

Mortality similar (11% hybrid, 16% open)

Best outcome hybrid: high risk, > 75 years
What about redo procedures?

• Open versus hybrid or endo
• Open surgery: re-sternotomy
• Heart attached to the sternum
• Problems: HCA, venting

Indications for redo procedures

• Post type A dissection aneurysm
• Post cardiomyotomy aneurysm
• Post cardiomyotomy dissection
• Post ascending repair arch aneurysm
• Post endograft arch aneurysm/migration
Considerations

- Open repair is still the gold standard for redo aortic arch procedures
- Exceptions: “frozen mediastinum”, connective tissue disease, “unfit” patients
- Future will be endovascular solutions