Chimneys, Snorkels, Periscopes, Sandwiches are and will continue to be valuable...

Frank J Criado, MD, FACS, FSVM
MedStar Union Memorial Hospital
Baltimore, MD USA

Disclosure
Frank J Criado, MD, FACS, FSVM

Medtronic: Honoraria for consulting, speaking/training

Chimneys - Snorkels
They emerged in two different settings:
- Bail-out/Rescue
- No access to FGs

Chimneys
Snorkels
Periscopes
Sandwich grafts

Parallel Grafts
Snorkels
Chimneys
Periscopes
CHIMPS
Sandwich grafts
Parallel Grafts

- Branch-vessel flow
- Parallel conduit
  - parallel to aortic endograft
  - BMS Bx or Sx, Cx, SG
  - length: S, M, L
- Gutters

Chimney and Periscope Grafts Observed Over 2 Years After Their Use to Rescuerulate 169 Renovascular Branches in 77 Patients With Complex Aortic Aneurysms


Purpose: To evaluate the performance of periscope and chimney grafts (PG, PG) in the endovascular treatment of patients with renovascular access of the aortic arch.

Methods: Between February 2006 and August 2013, 77 consecutive patients had their aortic arch treated with PG, PG, or both. The procedures were performed as an elective or urgent procedure and were aimed at the correction of aortic arch aneurysms, aortic arch dissection, and aortic arch obstruction. The aortic arch was divided into 5 segments: the ascending aorta, the arch, the innominate artery, the left common carotid artery, and the left subclavian artery. The PG was used in 169 combined with PG in 4. The PG was used as a single procedure in 15 patients.

Results: The mean duration of follow-up was 2.2 years (range, 6 months to 7 years). The median survival was 2.8 years (range, 6 months to 7 years). The mean number of follow-up procedures was 2.8 (range, 1-5). The mean number of follow-up procedures was 2.8 (range, 1-5).

Conclusions: PG and PG are safe and effective procedures for the treatment of aortic arch aneurysms, aortic arch dissection, and aortic arch obstruction. Further studies are needed to evaluate the long-term outcomes of these procedures.
The case for Ch-EVAR:
- Urgent/emergent procedures
- Branch-vessel bail-out
- No access to F-EVAR or lacking necessary resources or required anatomy
- Planned elective complex EVAR...

Ch-EVAR Challenges
- Type I endoleak (up to 10%)
- Mechanical interaction
- Questions Re. long-term durability
- Lack of strong evidence basis