EVAS in Juxta-Renal and Supra-Renal Aneurysms

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Financial Disclosure Slide

- Consultancy fees, Speakers bureau, Research funding
  - Medtronic
  - Endologix
Change in Endovascular Practice SGVI

Neck Length > 15mm

Outside Proximal Neck IFU (d/ l)

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Custom Made Fenestrated Grafts

- “Gold standard” at present
- Technically challenging – good success
- Significant “turn down” rate (manufacturing constraints, morphology)
- Delay to treatment
- 7% early reintervention, 28% mortality in sealing zone 6

Banno et al JVS 2014; 60: 31
Globalstar Circ 2012; 125: 2707
Patel et al JVS 2015; 62: 319
EVAR and Parallel Grafts for Juxta-Renal AAA

- Near universal applicability

Early results better than expected – durability?

- Issue is seal – gutters / endoleaks

- Pericles Registry – Type 1 2.9%

- Improved seal with polymer based technology?
EVAS and Parallel Grafts
Parallel Grafts and EVAS – Current Practice SGVI

- AAA above 6cm / EVAR revision
- >80y (limited life expectancy)
- fEVR / open turndown
- Now approaching standard of care (58 cases)
- Long term durability untested
Parallel Grafts and EVAS – Technique

- Plan to increase sealing zone to 2cm – parallel sided aorta (1-3 chimneys)
  - Access site according to number
    - Distal axillary / brachial – 1
    - Infraclavicular axillary – 2/3
  - Balloon expandable stents
Parallel Grafts and EVAS – Technique

- 7F sheaths placed in target vessels
  - Aim for parallel alignment
- Inflate Nellix stents first and then visceral stents
  - Keep balloons inflated whilst endobags filled and polymer cures
Neck 6-25mm
Visceral Stenting/Placement of Protection Balloons/ EVAS
Parallel Grafts and EVAS – SGVI Series (April 2015)

- 47 patients: 8 (3)/7 (2)/ 32 (1)
- 3 ruptured AAA / 4 mycotic / 7 EVAR revisions
- 2 deaths (1 rupture / 1 elective)
- 3 endoleaks (all resolved with embolisation)
- 1 limb occlusion / 1 renal stent stenosis
Validation Work for Parallel Grafts / EVAS
Post-market registry of the Nellix System with parallel grafts in juxta-renal, opera-renal and supra-renal AAA

- Retrospective and prospective
  - Open-label, single-arm, no prospective screening
  - 200 patients, up to 10 international centers with 5y F/U
  - Endpoints typical of EVAR therapy in complex AAA
EVAS in Complex Aortic Disease

- Promising use of new technology – therapeutic gap
- Theoretical advantages in using polymer based sealing
- Early results acceptable – approaching first line therapy
  - Proof of concept – testing
- Long term results and endograft durability
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