

EVAS in Juxta-Renal and Supra-Renal Aneurysms

Matt Thompson

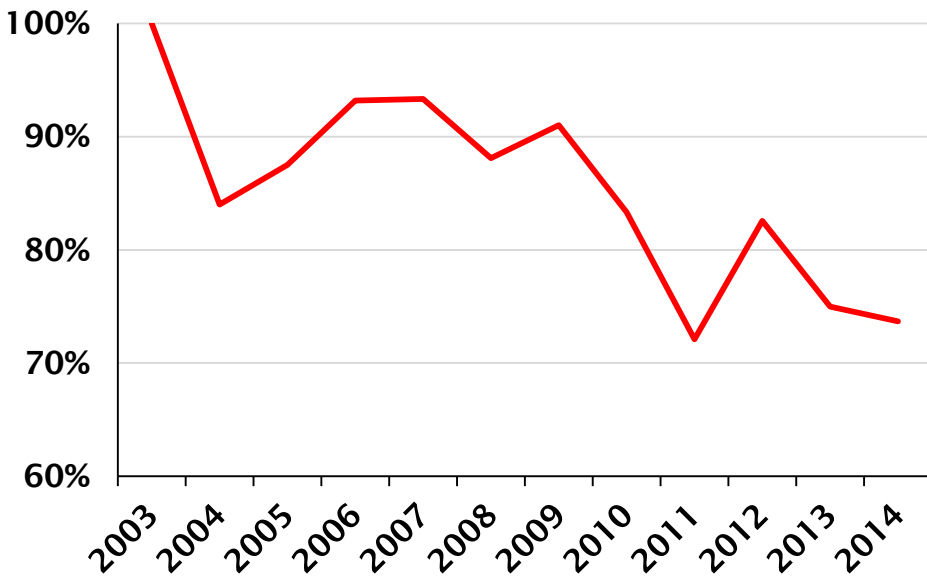
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Financial Disclosure Slide

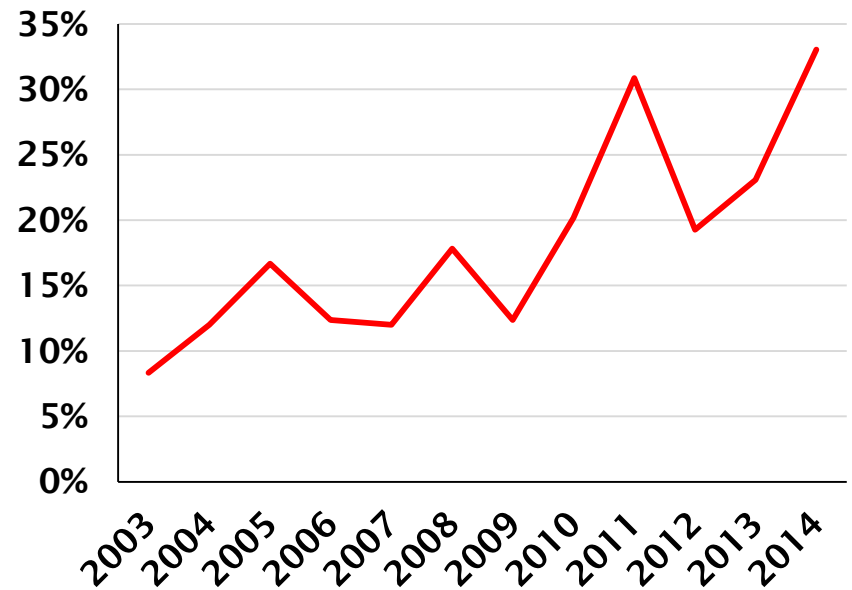
- **Consultancy fees, Speakers bureau, Research funding**
 - **Medtronic**
 - **Endologix**

Change in Endovascular Practice SGVI

Neck Length > 15mm



Outside Proximal Neck IFU (d/ l)

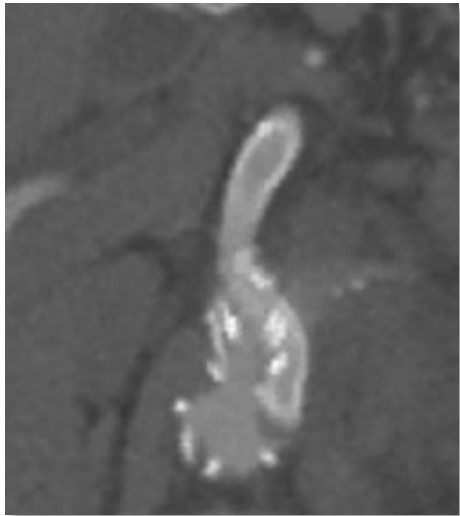
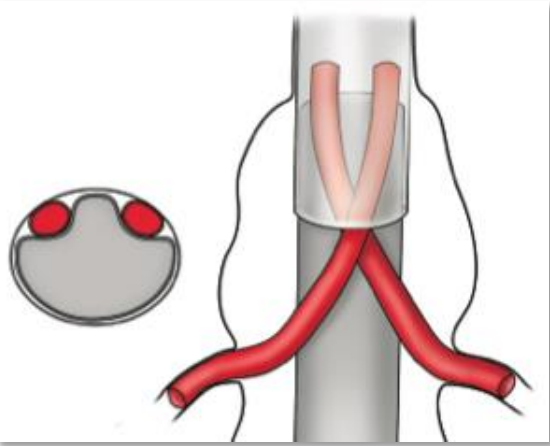


Custom Made Fenestrated Grafts



- “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

EVAR and Parallel Grafts for Juxta-Renal AAA

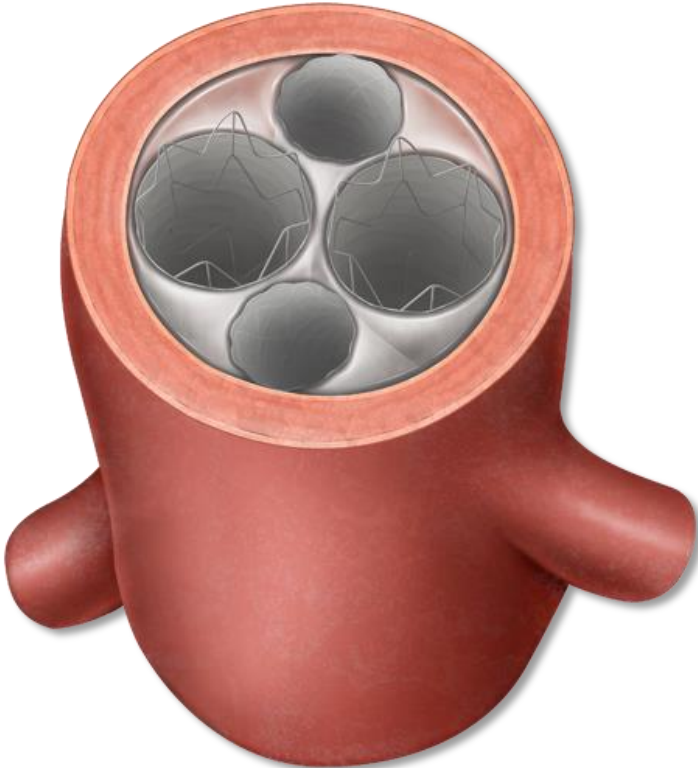
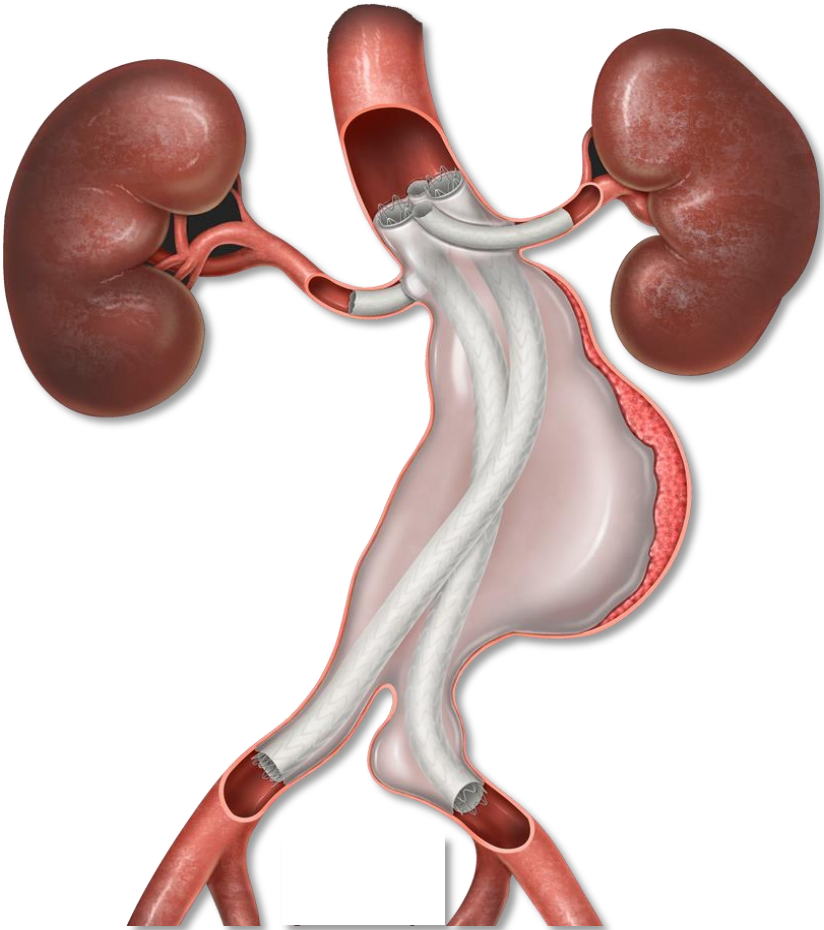


- Near universal applicability

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

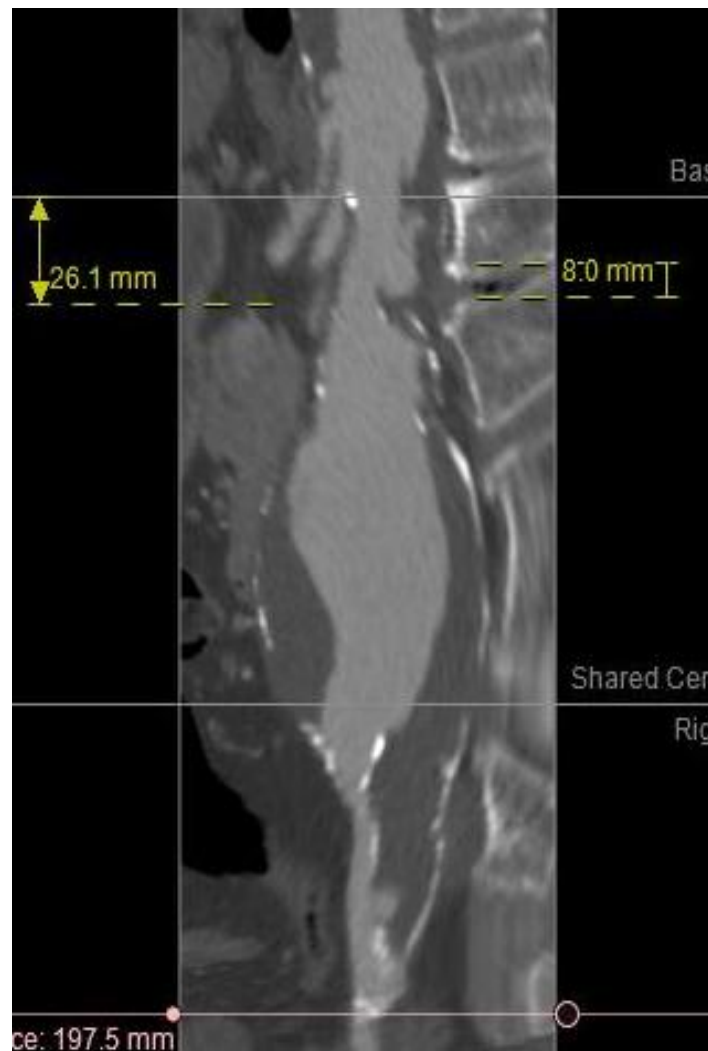


Parallel Grafts and EVAS – Current Practice SGVI

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

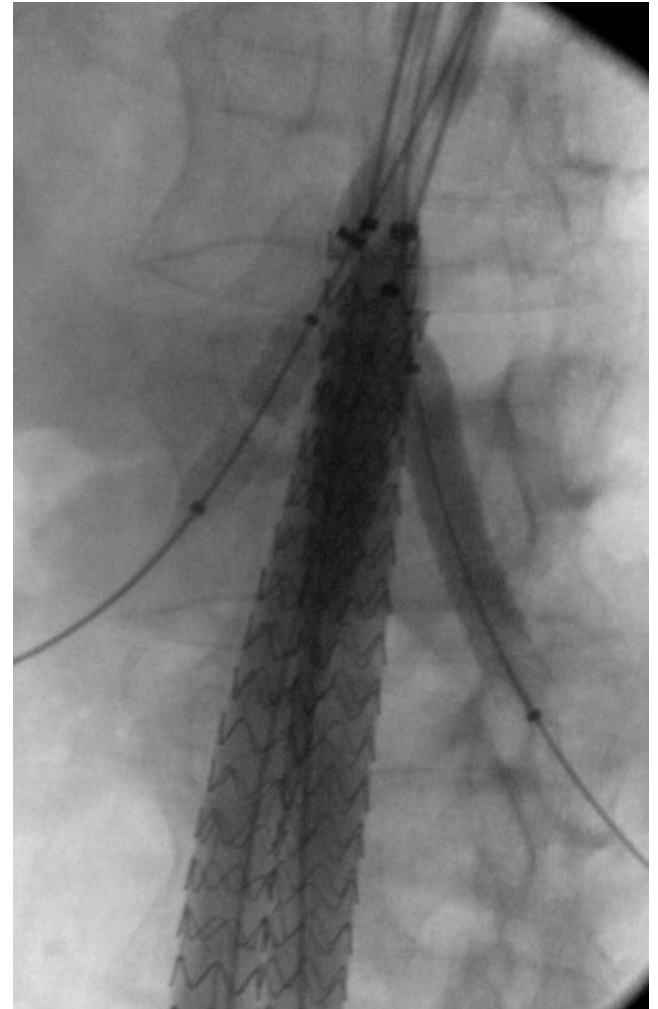
Parallel Grafts and EVAS – Technique

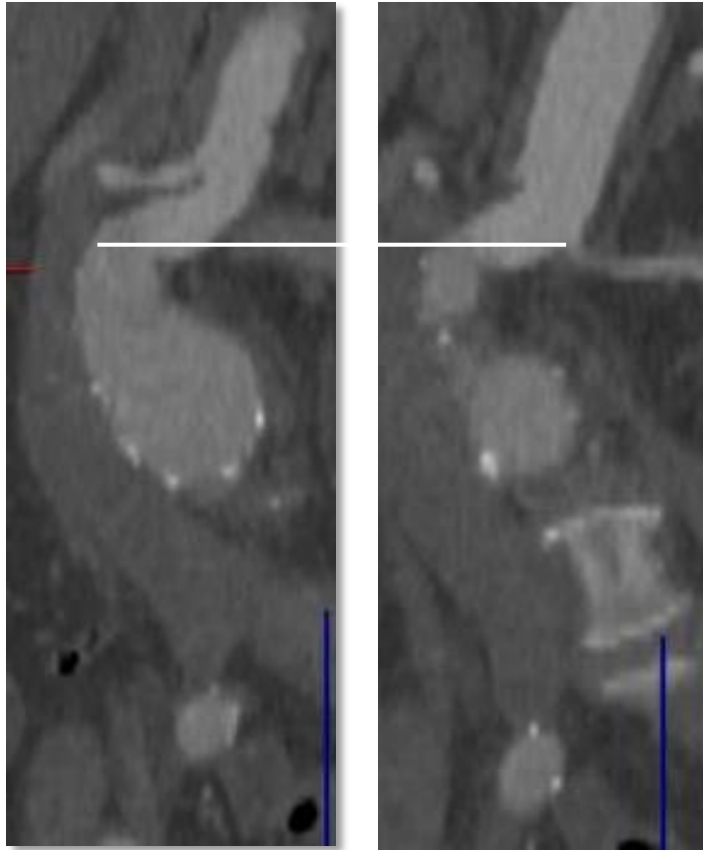
- Plan to increase sealing zone to 2cm – parallel sided aorta (1-3 chimneys)
 - Access site according to number
 - Distal axillary / brachial – 1
 - Infraclavicular axillary – 2/3
 - Balloon expandable stents



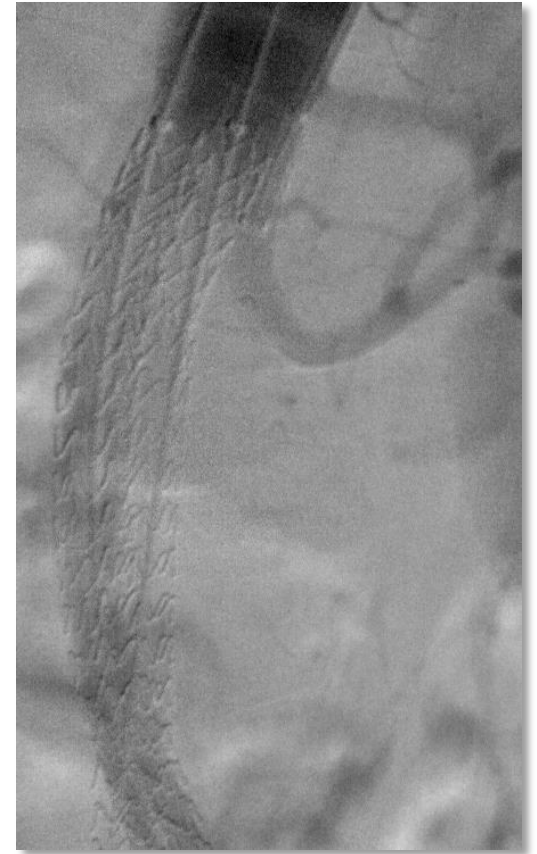
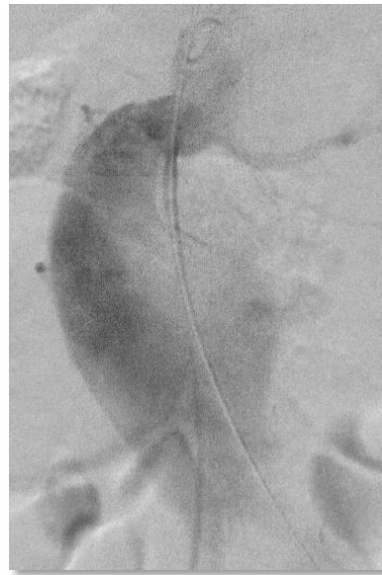
Parallel Grafts and EVAS – Technique

- **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**

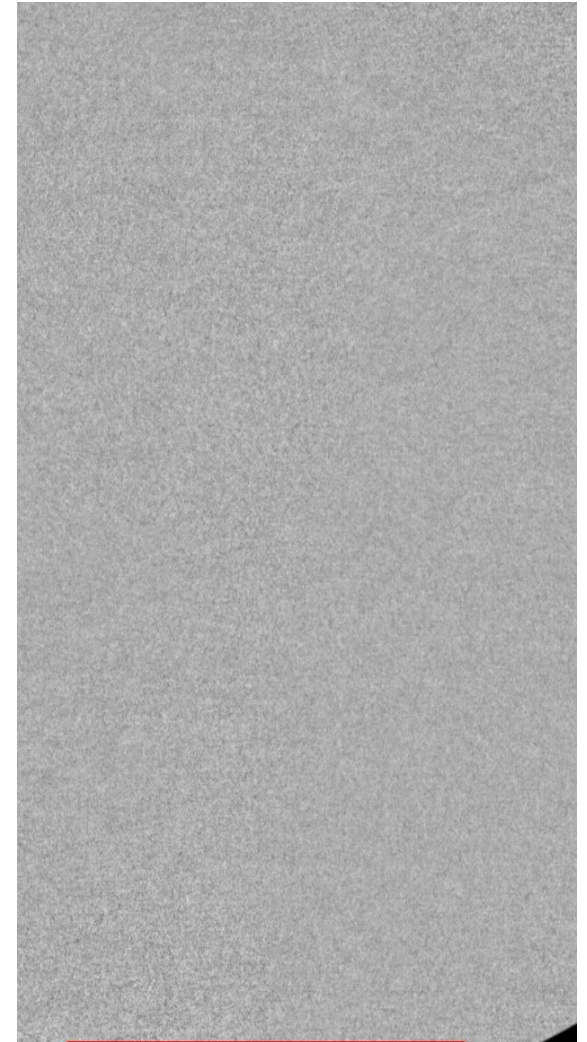


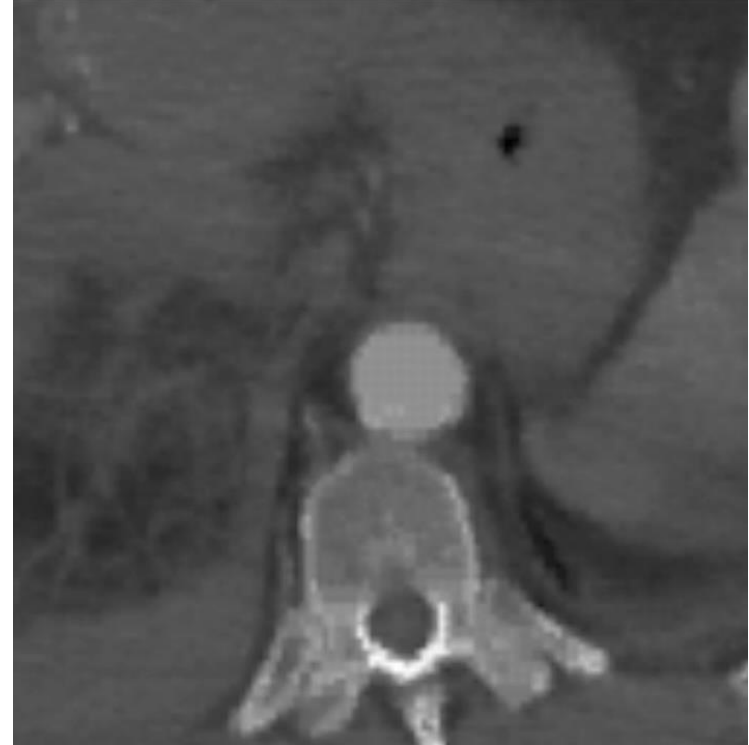
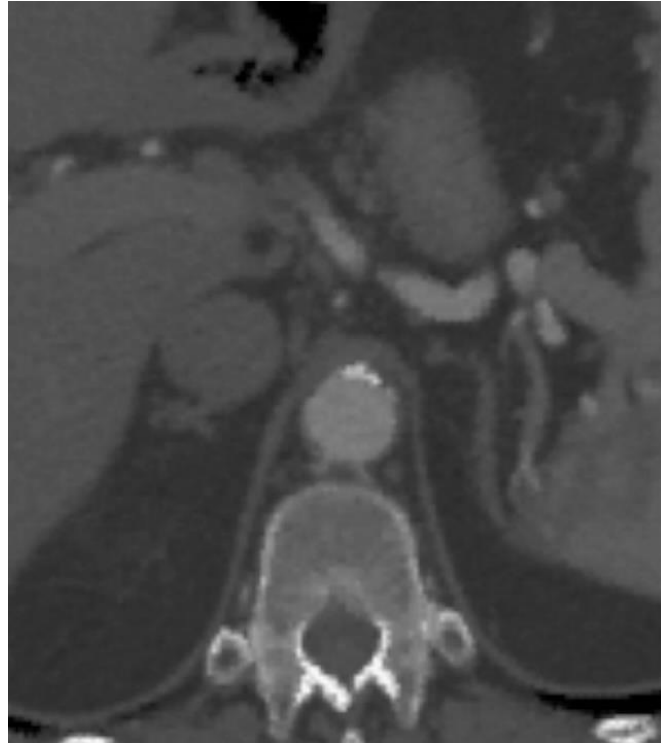


Neck 6-25mm



Visceral Stenting/Placement of Protection Balloons/ EVAS

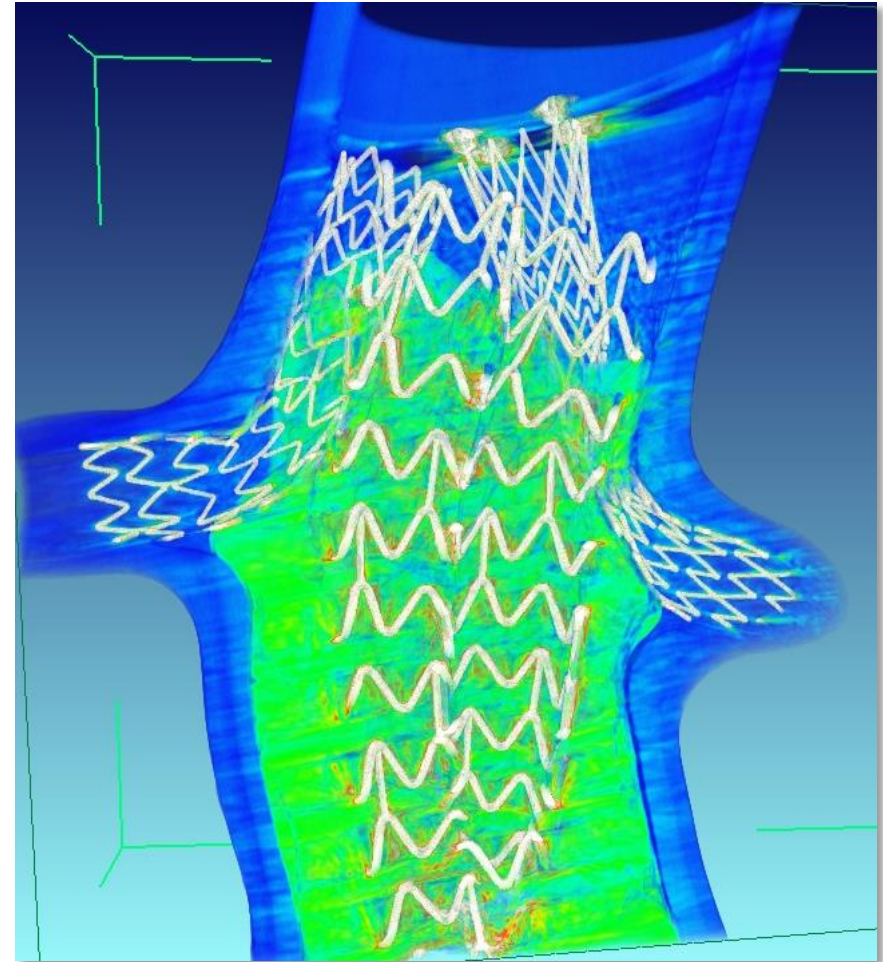
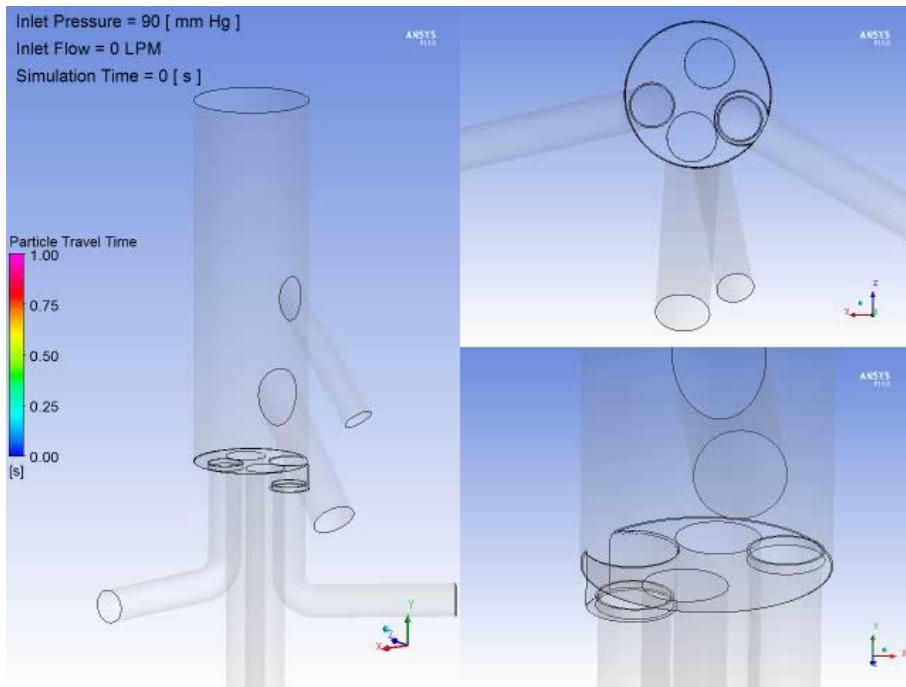




Parallel Grafts and EVAS – SGVI Series (April 2015)

- 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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