An update on Western Australian experience with the Gore Excluder Iliac Branch device for common iliac artery aneurysm – technical and intermediate outcomes.

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I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest
Outline

• Background
• Objective
• Methods
• Results
• Conclusion
Background

- EVAR is preferred treatment modality for AAA\(^1\)
- 20-30% have co-existing iliac artery aneurysm\(^2\)
  - Conventional EVAR – type 1 endoleak, limb occlusion\(^3\)
  - “Coil and cover” – pelvic ischaemia\(^4,5\)
    - Buttock claudication 28%
    - Erectile dysfunction 17%
    - Colonic/Spinal ischaemia – 1%
  - Hybrid procedures, off label use of endografts, sandwich techniques, bell bottom limbs etc – uncertain long term outcomes!
Dedicated iliac branch devices developed specifically to preserve the IIA.

- GORE EXCLUDER Iliac Branch Endoprosthesis (IBE)
  - Flexible internal iliac extension branch
  - Low profile delivery (16F)
  - Pre-cannulated internal iliac gate design to potentially reduce procedure time
  - Repositionable two stage GORE SIM-PULL delivery system
The aim of this study was to assess the safety and mid-term results of endovascular treatment of common iliac artery aneurysm using the new GORE EXCLUDER iliac branch endoprosthesis device.
Methods

Western Australia IBE Registry

- June 2015 to January 2019 (4y FUP and continuing)
- Multi centre 6 sites
  - FSH, RPH, SCGH (public)
  - HPH, SJOGM, SJOGS (private)
- Prospective data collection – phone call to patient, rooms, hospital records, imaging and follow up letters
- Research Data Manager
- Database protected

- Patients with CIA +/- AAA who underwent treatment with GORE IBE device were included
- Anatomical and procedural data collected (CTA 30d, 6 months, yearly)
• 55 patients with CIA
• Mean follow up 20 months
• Mean age 75
• Bilateral aneurysm in 15 patients, while 40 had single aneurysm of the common iliac artery
• 23 cases previous AAA intervention

Results
### Procedure details

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median ASA classification (range)</td>
<td>3 (2-4)</td>
</tr>
<tr>
<td>Procedure duration (mins)</td>
<td>126 (SD 39.4)</td>
</tr>
<tr>
<td>Screening time (mins)</td>
<td>45.3 (SD 16.4)</td>
</tr>
<tr>
<td>Contrast volume (mls)</td>
<td>125 (SD 102.8)</td>
</tr>
<tr>
<td>Radiation dose (uGym²)</td>
<td>102119.7 (SD 148618.8)</td>
</tr>
<tr>
<td>Contrast modality</td>
<td></td>
</tr>
<tr>
<td>Iodine</td>
<td>61%</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>6%</td>
</tr>
<tr>
<td>Carbon dioxide + Iodine</td>
<td>33%</td>
</tr>
<tr>
<td>Access</td>
<td></td>
</tr>
<tr>
<td>Femoral</td>
<td>96%</td>
</tr>
<tr>
<td>Brachial</td>
<td>4%</td>
</tr>
<tr>
<td>Anaesthesia</td>
<td></td>
</tr>
<tr>
<td>General anaesthesia</td>
<td>73%</td>
</tr>
<tr>
<td>Regional anaesthesia</td>
<td>25%</td>
</tr>
<tr>
<td>Local infiltration</td>
<td>2%</td>
</tr>
</tbody>
</table>
### Results

<table>
<thead>
<tr>
<th>Follow up data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical success</td>
<td>88%</td>
</tr>
<tr>
<td>Conversion to open</td>
<td>0</td>
</tr>
<tr>
<td>Median Length of stay (days)</td>
<td></td>
</tr>
<tr>
<td>Intensive care unit</td>
<td>1 (0 – 4)</td>
</tr>
<tr>
<td>Hospital</td>
<td>3 (1-57)</td>
</tr>
<tr>
<td>Endoleak</td>
<td></td>
</tr>
<tr>
<td>Type 1</td>
<td>1</td>
</tr>
<tr>
<td>Type 2</td>
<td>12</td>
</tr>
<tr>
<td>Type 3</td>
<td>1</td>
</tr>
<tr>
<td>Mortality 30d</td>
<td>0</td>
</tr>
<tr>
<td>Buttock/Pelvic Claudication</td>
<td>7</td>
</tr>
</tbody>
</table>

- 96% - 2 year branch patency
- (1) Balloon expandable stent to IIA & EIA for stenosis
- (1) Graft limb occlusion – requiring fem-fem bypass
Conclusions

• Technical success and mid-term results are encouraging

• Prospective registry is in progress to provide longer follow up
References


THANK YOU
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