Use of Stent Grafts for Treatment of Aorto-Iliac Occlusive Disease

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Disclosure

Speaker name:

..........Ehrin Armstrong..........................................................

I have the following potential conflicts of interest to report:

- Consulting: Abbott Vascular, Boston Scientific, Cardiovascular Systems, Spectranetics

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

- I do not have any potential conflict of interest
Aortoiliac Occlusive Disease

• PAD involving only the iliac arteries can often be treated with standard endovascular techniques.
  Balloon expandable, balloon expandable covered, or self-expanding stents.

• Involvement of aorta may necessitate use of endografts.
  Coverage of both aorta and iliac occlusive disease.

• Potential benefit of preserving native bifurcation.
  Flow disturbance with kissing iliac stents
Increased Coverage of Diffuse Disease
Case Example – Isolated Aortic Disease

• 65 year old male

• Abrupt onset of bilateral lower extremity claudication and weakness (< 50 meters)

• Right ABI = 0.91

• Left ABI = 0.96

• ABIs decreased to 0.35 with exercise

• Elevated Doppler velocities up to 582 cm/sec in abdominal aorta
Procedural Plan

• Radial access – Pigtail catheter in abdominal aorta for angiography
• Left femoral access
  – Ultrasound guided
  – PreClose technique with 2 ProGlide catheters
  – 20 Fr Sheath inserted
• 21 mm Gore c-TAG endoprostheses to exclude aneurysm and thrombus
Case Example – Extensive Disease
• Multicenter, retrospective study of 91 patients with symptomatic AIOD.
  – 74% of patients with lifestyle-limiting claudication.

• Mean follow up of 22 months.

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## Baseline Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>68 ± 10</td>
</tr>
<tr>
<td>Male Gender (n)</td>
<td>62%</td>
</tr>
<tr>
<td>ASA Class</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>16%</td>
</tr>
<tr>
<td>III</td>
<td>57%</td>
</tr>
<tr>
<td>IV</td>
<td>21%</td>
</tr>
<tr>
<td>Concomitant AAA ≥3.5cm</td>
<td>1.7%</td>
</tr>
<tr>
<td>Ambulatory Status</td>
<td></td>
</tr>
<tr>
<td>Ambulatory</td>
<td>93%</td>
</tr>
<tr>
<td>Amb w/ assistance</td>
<td>5%</td>
</tr>
<tr>
<td>Wheelchair</td>
<td>2%</td>
</tr>
</tbody>
</table>

Maldonado et al, EJVES 2016
# Procedural Complications

<table>
<thead>
<tr>
<th>Complication</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groin Infection</td>
<td>6</td>
<td>7%</td>
</tr>
<tr>
<td>Respiratory Failure</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Groin Hematoma</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Rupture</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Hemodynamic Instability</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Dissection</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Thromboembolic Event</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Iliac Injury</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Femoral Thrombosis</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Stroke</td>
<td>1</td>
<td>1%</td>
</tr>
</tbody>
</table>

Maldonado et al, EJVES 2016
Freedom From Secondary Interventions

Maldonado et al, EJVES 2016
Retrospective review of 10 patients with TASC D AIOD.

All patients high risk for aortobifemoral bypass.

All patients had rest pain, 4 had tissue loss.

Mean follow-up 40 months.

Summary and Conclusions

Extensive aortoiliac occlusive disease involving the aorta and/or iliac arteries can be successfully treated with endografts.

High rates of procedural success, low morbidity.

Procedural planning crucial for sizing.

Tortuosity, minimal aortic diameter.
Thank You

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