The Leipzig experience of percutaneous procedures for Leriche syndrome

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Disclosure

Speaker name: Madeleine Luther

I do not have any potential conflict of interest.
Study design

• Retrospective cohort study of patients with Leriche syndrome undergoing endovascular reconstruction of the aortoiliac system using covered stents

• Clinical follow up:
  – Technical success
  – Clinical success
  – Rate of death
  – Primary Patency
Study design

- 12/2007 – 12/2015
- 36 patients treated, 1 lost to follow-up (2.8%)
- Mean follow-up time: 31.7 months (range 1-96 months)
## Baseline patient characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N = 36</strong></td>
<td></td>
</tr>
<tr>
<td>Age (years), mean</td>
<td>59.2 (range 31-89)</td>
</tr>
<tr>
<td>Female, %</td>
<td>44.4</td>
</tr>
<tr>
<td>Arterial Hypertension, %</td>
<td>72.2</td>
</tr>
<tr>
<td>Hyperlipidemia, %</td>
<td>44.4</td>
</tr>
<tr>
<td>Diabetes, %</td>
<td>19.4</td>
</tr>
<tr>
<td>Current/former smoking, %</td>
<td>69.4</td>
</tr>
<tr>
<td>Coronary heart disease, %</td>
<td>30.6</td>
</tr>
<tr>
<td>Renal insufficiency, %</td>
<td>27.8</td>
</tr>
<tr>
<td>Cerebrovascular disease, %</td>
<td>8.3</td>
</tr>
</tbody>
</table>
Baseline patient characteristics

Rutherford Stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rutherford 3</td>
<td>58.3%</td>
</tr>
<tr>
<td>Rutherford 4</td>
<td>16.7%</td>
</tr>
<tr>
<td>Rutherford 5</td>
<td>13.9%</td>
</tr>
<tr>
<td>Rutherford 6</td>
<td>5.6%</td>
</tr>
<tr>
<td>Acute limb ischemia</td>
<td>5.6%</td>
</tr>
</tbody>
</table>
Case example

- Male
- 51 years old
- Chronic occlusion of:
  - Infrarenal aorta
  - External/internal iliac arteries
  - Left femoral artery
- Rutherford 3
- Multiple prior surgical and endovascular interventions elsewhere
Case example
Case example
Peri-interventional Complications

- 8/36 (22.2%)
- Access site complications 5
  - Local bleeding/retroperitoneal hematoma requiring transfusion 4
  - AV fistula 1 (not requiring intervention)
- Cardiac decompensation 2 (resolved with diuretics)
- Renal deterioration 1 (treated without further complications)
Follow-up - Death

• 10/36 (27.8%)

• 30 day mortality
  – In hospital 5/36 (13.9%) mean 10.8d
    1) Sepsis; Rutherford 6
    2) MOF; acute Leriche syndrome in the context of acute MI
    3) MOF; reperfusion syndrome
  – After discharge 2/36 (5.6%)

• >30 day mortality
  – Cardiac decompensation 3
  – Dementia 1
  – Cancer 1
Follow-up – Patency rate

- Primary technical success: 100%
- Rate of re-occlusion: 5/36 (13.9%) after 5.5m
- Primary patency
  - After 6 months: 87.5% (21/24)
  - After 12 months: 82.4% (14/17)
  - After 24 months: 72.7% (8/11)
- Clinical improvement: 26/31 (83.9%)
Conclusions

Pros
• Minimal invasive
• Shorter length of stay in hospital
• Good short- and mid-term results
• Lower peri-interventional morbidity and mortality

Cons
• Long-term patency?
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