Experience and Results:
SFA occlusive disease

Laurens van Walraven MD
Vascular and Endovascular Surgeon
Antonius Hospital Sneek
The Netherlands
Disclosure

I do not have any potential conflict of interest
Infrainguinal arterial occlusive disease

- **Venous femoro-popliteal bypass** is the gold standard for extensive lesions in the superficial femoral artery

- **Vulnerable patients** with often multiple co-morbidities

- Bypass surgery related to complications, prolonged hospital stay and re-interventions
Landingszone with preserving collaterals

Length of occlusion up to 28
Latest generation Viabahn

- Heparin bonding technology
- Contoured proximal edge
- 25 cm long endografts
Covered stents (viabahn)

- The only endodevice randomised against the **gold standard** (fem pop bypass) (Mc Quade, Superb trial)

- A perfect mechanical barrier against atherosclerosis

- Surgical versus PERcutaneous Bypass: SUPERB-trial; Heparin-bonded endoluminal versus surgical femoro-popliteal bypass: study protocol for a randomized controlled trial; trials 2012

Why using SE covered stents?

- They may reduce the incidence of re-stenosis
- Reduce ISR to a focal edge stenosis:
  - Easier to treat
  - Incidence independent of lesion length
indications Viabahn in our practice

- Any lesion length longer 10 cm in the AFS (TASCII B, C en D) claudicans and critical limb ischemia with at least one run off vessel

- Popliteal lesions stenosis/aneurysm

- External iliac occlusions TASCII C,D up into the CFA
Techniques

• Percutaneous (antegrade/retrograde distal approach or cross over)

• Hybrid (cut down)
Treating the proximal SFA

• **Percutaneous procedure**
  – flush 2 mm above the profunda origin (use ipsilateral angulated view to align the Viabahn endoprosthesis with the SFA origin)

• **Hybrid procedure:**
  – endarterectomy of first cm into the AFS and landingszone will be created and patch closure
6-25 Viabahn, flush at origin SFA
No disturbance on MRA scan
TascII C lesion, heavy calcifications, 12 cm occlusion
After recanalisation, angio catheter to proof re entry

After post dilatation still compression by Ca Implant 6-15 Viabahn
Open approach with CFA endarterectomy and closure with patch
Sizing, it does matter!

• Do not oversize Viabahn by more than 20% of true diameter as it has a significant influence on patency*

• A properly sized 5 mm Viabahn will have better patency than an oversized 6 mm device.

• Consider telescoping from 5 or 6 mm viabahn distally to larger 6 or 7 mm Viabahn proximally; always overlap the endograft by minimum 1 cm

Collaterals

- Do not worry about covering collaterals in the distal superficial femoral artery (SFA).
- Always stent “normal to normal” and cover any vessel segment that has been treated with angioplasty, atherectomy, or other therapy regardless of how “normal” it looks.
Distal landing zone

- AVOID landing at upper edge of patella

- Optimal proximal P1, mid segment P2, P3

(a) native vessel  
(b) conventional straight stent

Ideal Proximal Landing Zone  
(above this line)

Avoid landing - kinking

Ideal Distal Landing Zone
Landingzone and collaterals

Try to preserve the inferior genicular arteries (in single vessel outflow)

In case of failure or ongoing disease might be important collaterals
Always stent “normal to normal”

- regardless of how “normal” it looks.
## Results SuperB trial
### Anatomical characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Surgical (n=58)</th>
<th>Endoluminal (n=56)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TASC 2 (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>4</td>
<td>0.60</td>
</tr>
<tr>
<td>C</td>
<td>15</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>80</td>
<td>75</td>
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</tr>
<tr>
<td><strong>Lesion length (cm)</strong></td>
<td>23.9</td>
<td>24.0</td>
<td>0.99</td>
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<tr>
<td><strong>Flush occlusion (%)</strong></td>
<td>39</td>
<td>29</td>
<td>0.29</td>
</tr>
<tr>
<td><strong>Diameter PA (mm)</strong></td>
<td>5.6</td>
<td>5.2</td>
<td>0.02</td>
</tr>
<tr>
<td><strong>Number of patent outflow vessels (%)</strong></td>
<td></td>
<td></td>
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<tr>
<td>0</td>
<td>3</td>
<td>8</td>
<td>0.48</td>
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<tr>
<td>1</td>
<td>14</td>
<td>16</td>
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<td>2</td>
<td>22</td>
<td>29</td>
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</tr>
<tr>
<td>3</td>
<td>57</td>
<td>46</td>
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<tr>
<td><strong>Pre-procedural ABI</strong></td>
<td>0.6</td>
<td>0.6</td>
<td>0.33</td>
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</tbody>
</table>

*Interim analysis; Data may be subjected to changes*
# Results Superb trial

## Patency

<table>
<thead>
<tr>
<th>Patency</th>
<th>Surgical (n=58)</th>
<th>Endoluminal (n=56)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 MONTH (n=101)</strong></td>
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<tr>
<td>Primary patency</td>
<td>92.3%</td>
<td>95.8%</td>
<td>0.855</td>
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<tr>
<td>Primary assisted patency</td>
<td>92.3%</td>
<td>97.9%</td>
<td>0.672</td>
</tr>
<tr>
<td>Secondary patency</td>
<td>92.3%</td>
<td>97.9%</td>
<td>0.444</td>
</tr>
<tr>
<td><strong>6 MONTHS (n=81)</strong></td>
<td></td>
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<tr>
<td>Primary patency</td>
<td>84.2%</td>
<td>89.1%</td>
<td>0.472</td>
</tr>
<tr>
<td>Primary assisted patency</td>
<td>86.4%</td>
<td>93.0%</td>
<td>0.377</td>
</tr>
<tr>
<td>Secondary patency</td>
<td>86.4%</td>
<td>95.6%</td>
<td>0.469</td>
</tr>
</tbody>
</table>

Interim analysis;
Data may be subjected to changes
Acknowledgments

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