Is There Still Role For Open Aortofemoral Bypass For Aorto-Iliac Occlusive Disease?

Michael Belkin, M.D.
Chief of Vascular and Endovascular Surgery
Brigham and Women’s Hospital
Professor of Surgery
Harvard Medical School

Aortofemoral Bypass
- Introduced early 1960’s
- Signature operation
  - safety, durability, hemodynamic results
- Long-term effectiveness

Endovascular Shift for Aortoiliac Disease
- Less arduous for patient and surgeon
- Patient preference
- More lucrative for the surgeon
- Efficacious in the aortoiliac segment
  - Safety, durable, patency,

Aortofemoral Bypass Obsolete?
- Most aggressive endovascular surgeons
- Improved endovascular skills
- Improved technology
  - Crossing catheters
  - Rentry devices
  - Stents
  - Covered, flexibility
- Hybrid procedures
In Practice: Wire Traversal

- Motivated, experienced, innovative endovascular surgeons
- Medical-Industrial complex with focused technology

Aortofemoral Bypass: BWH

- 284 Bypasses
- 59% claudication
- 9% major morbidity
- 1% mortality
- 2% early limb thrombosis
- 92 ±4% 5-yr survival

SP Rates by Indication
**SP Rates for ABF by Gender**

- Male: 95%
- Female: 91%

`P = NS`

Reed, JVS, 2003

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**SP Rates for ABF by Proximal Anastomosis**

- End-to-end: 95%
- End-to-side: 93%

`P = NS`

Reed, JVS, 2003

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**Overall 5 year Cumulative SP**

- Male: 99%
- Female: 91%
- <50 years: 79%

`P < .05 between all groups`

Reed, JVS, 2003

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**Potential Predictors of Graft Occlusion**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.91</td>
<td>(0.87, 0.95)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Male</td>
<td>0.71</td>
<td>(0.30, 1.68)</td>
<td>0.44</td>
</tr>
<tr>
<td>Smoker</td>
<td>3.63</td>
<td>(0.84, 15.57)</td>
<td>0.08</td>
</tr>
<tr>
<td>Diabetes</td>
<td>0.34</td>
<td>(0.08, 1.48)</td>
<td>0.15</td>
</tr>
<tr>
<td>HTN</td>
<td>0.37</td>
<td>(0.14, 0.94)</td>
<td>0.04</td>
</tr>
<tr>
<td>CAD</td>
<td>0.52</td>
<td>(0.21, 1.29)</td>
<td>0.15</td>
</tr>
<tr>
<td>Graft size</td>
<td>0.56</td>
<td>(0.41, 0.77)</td>
<td>0.0001</td>
</tr>
<tr>
<td>EE vs ES</td>
<td>1.39</td>
<td>(0.44, 4.57)</td>
<td>0.579</td>
</tr>
</tbody>
</table>

Reed, JVS, 2003

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**Aortobifemoral Bypass Results**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>No. of Patients</th>
<th>1 Year SP</th>
<th>3 Year SP</th>
<th>5 Year SP</th>
<th>10 Year SP</th>
<th>15 Year SP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kashyap et al.</td>
<td>2008</td>
<td>762</td>
<td>69</td>
<td>69</td>
<td>69</td>
<td>69</td>
<td>69</td>
</tr>
</tbody>
</table>

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**Angioplasty of TASC C/D Aortoiliac Disease: Results**

- Retrospective studies
  - Small numbers
  - Short term f/u
- High degree of technical success (90-96%), safety
Aortobifemoral bypass

- Endovascular primary approach
- ABF: One of our best most durable operations
- Good risk patients
  - Fresh occlusions, long segment occlusions, endo failures, combined AAA/occlusive disease
- We must train our residents and fellows
  - ABF results will suffer
  - Endovascular path of least resistance

Hertzer: JVS 2007;45:527

“Aortobifemoral Bypass

“Nurse, could you Google ‘sorts?’”