PQ (Percutaneous) Transvenous Arterial Fempop Bypass Procedure: Concept And Technique For Performing (Video)

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PQ Bypass DETOUR™ System
Designed Specifically for DETOUR Procedure -- Proprietary Stent Graft and Bypass Kit --

Torus™ Stent Graft
- Designed with increased radial force and resists compression at anastomoses
- Variable radial force at proximal and distal ends designed to gently conform to native vessel wall

DETOUR Bypass Kit
- DETOUR Grasp
- DETOUR Crossing Device
- Simplify Guidewire Placement

Potential conflicts of interest
Speaker’s name: Andrej Schmidt
✓ I have the following potential conflicts of interest to report:
Consulting / speaker honorarium:
Abbott, C.R.Bard, Cook, Cordis, Medtronic, ReFlow Medical, Upstream Peripheral

Percutaneous Endovascular Femoro-Popliteal Bypass
The “DETOUR” Procedure

- Fully-percutaneous stent graft bypass
- Originates in SFA, travels through the femoral vein, ends in popliteal artery
- Designed for long, complex lesions

Access, Arteriography, Phlebography

Nitinol-Basket for GW-snaring
Reentry back into the Artery

PTA and Stentgraft-Implantation

PTA and Stentgraft-Implantation

PTA and Stentgraft-Implantation
10mm femoral vein

6-8mm duplicate veins

15 months FU

Proof of Concept

El Camino Hospital (ECH) 2003/13
James D. Joye, DO
- 21 Patients / 25 Limbs with
- long, complex lesions
- utilizing off-the-shelf devices

Lesion Characteristics

<table>
<thead>
<tr>
<th>Lesion Length (cm)</th>
<th>31.2 ± 9.7</th>
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</thead>
<tbody>
<tr>
<td>TASC D</td>
<td>88.0%</td>
</tr>
<tr>
<td>Rutherford 3 - Severe</td>
<td>42.9%</td>
</tr>
<tr>
<td>Rutherford 4 - Critical</td>
<td>24.9%</td>
</tr>
<tr>
<td>Rutherford 5 - Tissue loss</td>
<td>28.6%</td>
</tr>
</tbody>
</table>

• Primary patency @ 1 year: 82%
• Secondary patency @ 4 years: 91%
• No objective venous morbidity

DETOUR I - 12 Month Safety and Efficacy
77 Patients / 81 Limbs with Very Long, Complex Lesions

N=81

Lesion Characteristics

<table>
<thead>
<tr>
<th>Lesion Characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesion Length (cm)</td>
<td>37.1 ± 5.5</td>
</tr>
<tr>
<td>TASC C/D</td>
<td>100%</td>
</tr>
<tr>
<td>CTO</td>
<td>96%</td>
</tr>
<tr>
<td>Severe Ca++</td>
<td>68%</td>
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Efficacy

- 73.8% Freedom from
- 35.9% Primary Patency
- 19.9% Primary Assist. Patency
- 25.3% Secondary Patency

Safety

- Freedom from 12 Months
  - Death: 98.7% (76/77)
  - CD-TLR: 78.8% (63/80)
  - Major Amp: 100% (80/80)

Key Lesson Learned from DETOUR I

Prox. Edge of Torus below SFA ostium

Post-procedural angiogram of subject

CT and angiogram of edge stenosis at ~6m
Key Lesson Learned from DETOUR I

Proper Proximal Placement of Torus Stent Graft

Pre-deployment Torus

Using the roadmap to align Torus

Prox. Edge of Torus

Optimal final position of Torus 3mm above ostium

2mm Exposed Prox. Edge

PTR over below