Current Needs and Solutions in Treatment of R5 and 6 - SUPERA and BVS

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Disclosure

• Workshop/Speaker Honourarium: Medtronic, Cook, Abbott, Straub Medical, Boston Scientific, Bard
• Consultancy: MdStart/Limflow, Acelity, Abbott, Boston Scientific, Vascurios Medical

What are the current unmet needs and solutions in CLI?

Problem

1. No distal runoff/small target vessels aka the “DESSERT FOOT”
2. Recoil/Calcium
3. Clinically relevant restenosis

Current Solutions

• BTA Angioplasty
• LimFlow Procedure
• Better Stents
• Debulking/Atherectomy
• ?DCB for BTK
• DES for short lesions

What are the goals in SFA treatment

• CLI ➔ short burst, large volume of blood flow for rapid wound healing before restenosis.
  (Fem-Pop “bypass like tube” with patency good enough for wound healing)
• Claudication ➔ prolonged patency to alleviate symptoms

WHAT ARE THE LIMITATIONS OF CONVENTIONAL STENTS?

Conventional Stents are easily Compressed

Stent Compression is not easy to appreciate!

AP MLD 15%
LAD MLD 42%
Courtesy Braunlich
Stent Compression Affects Patency

**Intravascular Ultrasound-Derived Stent Dimensions as Predictors of Angiographic Restenosis Following Nitinol Stent Implantation in the Superficial Femoral Artery**


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Good Symmetrical Expansion on IVUS with SUPERA

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Stent Expansion affects Volume of blood flow

<table>
<thead>
<tr>
<th>Stent Diameter (mm)</th>
<th>Increase in Volume (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>25%</td>
</tr>
<tr>
<td>5.0</td>
<td>23%</td>
</tr>
<tr>
<td>5.5</td>
<td>21%</td>
</tr>
<tr>
<td>6.0</td>
<td>19%</td>
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<tr>
<td>6.5</td>
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How does the Supera perform in patients with CLI?

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Stents play a crucial role in “in-flow” management of CLI

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CASE EG5
SUPERA STENTS FOR THE SFA IN CLI

RS + Short distance claudication

CFA & PFA Occlusion

SFA CTO

SUPERA STENTS FOR THE SFA IN CLI

5.5 MM SUPERA STENTING TO ORIGIN

SFA/Pop CTO

Retrograde PT

6 X 40 NC @ 24 ATM

7 X 100 NC @ 24 ATM

SUPERA STENTS FOR THE SFA IN CLI

5.5 mm SUPERA Stent

SFA/Pop CTO

Retrograde PT

5.5 mm SUPERA Stent

VAC
3 years follow-up

64 HEAVY SMOKER DIABETIC CLI
POBA FOR PT SHORT OCCLUSION

OPTIMISING INFLOW TO GIVE A “FEM-POP BYPASS” LIKE RESULT
8 weeks

SUPERA FOR OCCLUDED BYPASS GRAFT
Stenosis at Proximal Anastomosis
Stenosis at distal vein Cuff

6F Rotarex
SUPERA FOR OCCLUDED BYPASS GRAFT

DCB + 5.5mm SUPERA

SUPERA for CFA Occlusion

Rest Pain, shallow toe wound
High surgical Risk/COPD

SUPERA for CFA Occlusion

SUPERA for CFA Occlusion

3 years later

CFA & PFA Patent

DISAPEAR Study

Japan
Impregnated bioabsorbable
Cent in
Oim
Population
Universality
Internel
Revascularization

4 months
R6 Gangrene

1 year Imaging follow up

Pre BVS 2012

Upper ATA was normal

Progression of disease in the segment of ATA

BVS segment (before implantation)

BVS segment is disease free

4 Year old BVS

Combination SUPERA and BVS for Trifurcation reconstruction

Combination SUPERA and BVS

Reconstruction of tibial bifurcation with SUPERA and BVS

Heavy calcium

Combination SUPERA and BVS for Trifurcation reconstruction

3.5 years
SUMMARY

• Interventional treatment for CLI requires a dedicated stent for REAL WORLD CLI lesions and wounds to achieve a “Fem-Pop Bypass” result
• Adjunctive DES with BVS in short to medium length lesions shows promise