The 1-year result of PRESTO for TASC D femoropopliteal artery lesion: Single centre experience in Hong Kong

Dr. Skyi Y.C. Pang
Consultant Vascular Surgeon
Department of Surgery
Queen Mary Hospital
Hong Kong
Disclosure

Speaker name:
Dr. Skyi Y.C. Pang

I have the following potential conflicts of interest to report:

- [ ] Consulting
- [ ] Employment in industry
- [✓] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

- [✓] I do not have any potential conflict of interest
Background

• Why PRESTO?
  • Interwoven helical stent provides better radial strength for heavily calcified and long femoropopliteal lesions
  • Difficult proximal landing accuracy for SUPERA stent
  • SENS/DES at (proximal) overlaps with SUPERA stent at (mid/distal SFA) versus SUPERA overlaps with SUPERA
  • Drug eluting device, atherectomy device are not reimbursement item at Hong Kong
Background

• What is PRESTO technique
  • To introduce the SUPERA stent from retrograde SFA/popliteal artery access
  • For treating SFA ostium lesion allowing accurate stent deployment
Aim

• To evaluate the 1 year result of PRESTO technique for TASC D femoropopliteal occlusion
Method

• Retrospective study started from June 2020-Dec 2022
• Endovascular intervention for TASC D femoropopliteal artery lesion involving or close to SFA ostium (within 2cm) at Pamela Youde Nethersole Eastern Hospital were recruited
• Patient demographics, peri-operative details and follow up data are recorded
• All patients under regular follow-up and duplex surveillance
### Result

<table>
<thead>
<tr>
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<th>N=17</th>
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<tbody>
<tr>
<td>Gender - Male</td>
<td>88.2% (15)</td>
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<tr>
<td>Mean age</td>
<td>70.3 (51-83)</td>
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<tr>
<td>Smoker</td>
<td>88.2% (15)</td>
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<tr>
<td>Diabetes</td>
<td>52.9% (9)</td>
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<tr>
<td>Renal impairment</td>
<td>41.2% (7)</td>
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#### Clinical presentation

- Rutherford 3: 76%
- Rutherford 4: 6%
- Rutherford 5: 18%
Lesion characteristics

• Mean lesion length - 28.9cm (22-38cm)
• 76.5% with moderate to severe calcification

Distribution of Outflow Vessels

- 65% 3 runoffs
- 23% 2 runoffs
- 12% 1 runoff
Operative outcome

• Technical success – 100%
• Average number of SUPERA stent used per patient 2.1
• Distal SFA or popliteal artery retrograde puncture
  • 23.5% patients with additional pedal puncture
• Concomitant iliac or BTK intervention – 35.3%
• No access related complication
• 1 patient with acute thrombosis treated with Rotarex® catheter
Follow-up

- Mean follow-up 18.6 Months (4-35 months)
- DAPT 6 month
- Regular duplex surveillance every 4-6 months

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<table>
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<tbody>
<tr>
<td>Primary patency at 1 year</td>
<td>85.7%</td>
</tr>
<tr>
<td>Secondary patency at 1 year</td>
<td>100%</td>
</tr>
<tr>
<td>Symptoms improvement</td>
<td></td>
</tr>
<tr>
<td>Claudicant</td>
<td>85.7%</td>
</tr>
<tr>
<td>CLTI</td>
<td>100%</td>
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Case example - long SFA to Popliteal artery CTO

CTO close to ostium

Distal PTA access
1\textsuperscript{st} Rendezvous wire established

Wire snared within occluded segment

Pre-dilatation with 2.5mm long balloon
Balloon puncture at distal SFA

Needling into 4mmx150mm antegrade balloon catheter

018 guidewire inside balloon

Guidewire riding on balloon
Retrograde deployment of SUPERA

Vessel preparation

The CXI catheter from posterior tibial artery access is pulling back during stent deployment
Rendezvous wire established again

Retrograde cannulation into SUPERA
Distal SFA haemostasis

2nd SUPERA stent deployment
Final angiogram
Conclusion

• TASC D femoropopliteal occlusion could be treated with endovascular approach with reasonable durability

• PRESTO technique may provide better durability in treatment of extra-long lesion involving SFA ostium
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