When, where, and how: an update on support catheters

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Disclosure

Speaker name:
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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 related to this presentation
# Microcatheters (PCI origin)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catheter</th>
<th>Length</th>
<th>Distal shaft diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott/Asahi</td>
<td>Tornus</td>
<td>150 cm</td>
<td>2.1 and 2.6 French</td>
</tr>
<tr>
<td></td>
<td>Corsair</td>
<td>135 cm, 150 cm</td>
<td>2.6 French</td>
</tr>
<tr>
<td>Boston Scientific</td>
<td>Renegade</td>
<td>105 cm, 115 cm, 135 cm</td>
<td>2.8 French</td>
</tr>
<tr>
<td></td>
<td>Tracker Excel 14</td>
<td>150 cm</td>
<td>1.9 French</td>
</tr>
<tr>
<td></td>
<td>Excelsior 1018</td>
<td>150 cm</td>
<td>2.0 French</td>
</tr>
<tr>
<td>Cordis</td>
<td>Transit</td>
<td>135 cm</td>
<td>2.5 French</td>
</tr>
<tr>
<td></td>
<td>Prowler</td>
<td>150 cm</td>
<td>1.9 French</td>
</tr>
<tr>
<td>Spectranetics</td>
<td>Quick Cross</td>
<td>135 cm, 150 cm</td>
<td>2.0 French</td>
</tr>
<tr>
<td>St Jude</td>
<td>Venture</td>
<td>145 cm (rapid exchange), 140 cm (over-the-wire)</td>
<td>2.2 French</td>
</tr>
<tr>
<td>Terumo</td>
<td>Progreat</td>
<td>110 cm, 130 cm</td>
<td>2.7 French</td>
</tr>
<tr>
<td></td>
<td>Finecross MG</td>
<td>130 cm, 150 cm</td>
<td>1.8 French</td>
</tr>
<tr>
<td>Vascular Solutions</td>
<td>Minnie</td>
<td>90 cm, 135 cm, 150 cm</td>
<td>2.2 French</td>
</tr>
<tr>
<td></td>
<td>Gopher</td>
<td>140 cm</td>
<td>3 French</td>
</tr>
<tr>
<td></td>
<td>Twin Pass 5200</td>
<td>140 cm</td>
<td>1.9 French distal tip, 3 French crossing profile</td>
</tr>
</tbody>
</table>

Brilakis ES et al Cath Card Int 2012;79:3-19
Catheters available

Asahi
Corsair Armet
Caravelle
Teleflex
Turnpike
Biotronik
Carnelian
Microcatheters

Support (recanalization)
  Antegrade (stand-alone/co-axial)
  Retrograde (sheathless)

Navigation
Requirements

Support
Taper on 0.014” guidewire (entry profile)
Sufficient length
  Cross-over
  Antegrade-retrograde passage
  Co-axial system
Diameter < 0.038” (co-axial)
Navigation

Transcollateral

Cf. trans-septal coronary

Pedal arch
Transcollateral recanalization

Failed antegrade recanalization posterior and anterior tibial artery
Transcollateral recanalization

Carnelian 14 BTA with 0.014” GT Gold and 0.014” Command
Transcollateral recanalization
Transcollateral recanalization
Recanalization

Stand-alone

Co-axial system

4F diagnostic catheter (0.038” lumen)
Y-connector
Guidewire of choice
Co-axial system

Catheter with 0.038” lumen
Y-connector
Continuous saline flush
  Reduces friction
  Prevents thrombotic occlusion
Micro-catheter
Co-axial system
Co-axial system

ISR 4F multi-purpose and Carnelian 18
Co-axial system
Co-axial system

Choice: give up wire position and exchange for long sheath or use co-axial system
Co-axial system

4F multi-purpose catheter with Carnelian 14 BTA
Co-axial system

Complementary vascularization
Co-axial system
Co-axial system
Co-axial system
Co-axial system

Co-axial system 4 F diagnostic catheter and Carnelian Support 18
Co-axial system

Lateral passage

Medial passage
Co-axial system
Co-axial system
Sheathless access

Ultrasound or fluoroscopic guided access

0.014” guide wire

Sheathless access
Distal access

Failed antegrade crossing/re-entry
What if wire is through and balloon does not follow?

Wire crossing-no balloon crossing: Turnpike
Conclusion

Multiple micro-catheters are available
Check for compatibility with your other ‘hardware’
Use of microcatheters will open alternative ways to cross complex lesions and increase your technical success rate
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