Ruby, POD and POD packing coil: a game changer in the paradigm of peripheral treatment with new embolization tools?

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IRCCS Policlinico S. Matteo
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RUBY™
Large Volume Detachable Coil
TECHNOLOGY HELPS TO OVERPASS OUR LIMITS
The “Mission is possible”

Deliver coils large as 0.035”

... through microcatheter

... with more softness
Penumbra Coil Advantages: Softness & Filling

<table>
<thead>
<tr>
<th>Penumbra Coil System Advantages: Softness by design</th>
<th>Penumbra Coil System Advantages: Filling</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Larger primary diameter is inherently softer than all current coil systems, by design.</td>
<td>• 400% the volume of a 10-coil system.</td>
</tr>
<tr>
<td>• Standard, Soft, Soft-J options</td>
<td>• Fewer coils per case.</td>
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<tr>
<td></td>
<td>• Shorter procedure time.</td>
</tr>
</tbody>
</table>

Primary Diameter: 0.020"

\[0.020" \text{ O.D.} = \frac{.010" \times .010" \times .010"}{.020"}\]
## Volume Advantage

<table>
<thead>
<tr>
<th>Coil</th>
<th>Coil Thickness</th>
<th>Longest 4 mm Coil</th>
<th>Longest 8 mm Coil</th>
<th>Longest 12 mm Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Penumbra Ruby™ Coil</strong></td>
<td>.020&quot;</td>
<td>1 Ruby 4 mm × 35 cm</td>
<td>1 Ruby 8 mm × 60 cm</td>
<td>1 Ruby 12 mm × 60 cm</td>
</tr>
<tr>
<td><strong>Covidien Concerto™ / Axium™</strong></td>
<td>.0125&quot;–.0145&quot;</td>
<td>9 coils = 1 Ruby 4 mm × 10 cm</td>
<td>4 coils = 1 Ruby 8 mm × 30 cm</td>
<td>3½ coils = 1 Ruby 12 mm × 30 cm</td>
</tr>
<tr>
<td><strong>Boston Scientific Interlock™</strong></td>
<td>.012&quot;</td>
<td>6½ coils = 1 Ruby 4 mm × 15 cm</td>
<td>8 coils = 1 Ruby 8 mm × 20 cm</td>
<td>3½ coils = 1 Ruby 12 mm × 50 cm</td>
</tr>
<tr>
<td><strong>Terumo Azur® CX Hydrocoil</strong></td>
<td>.014&quot;–.015&quot;</td>
<td>5½ coils = 1 Ruby 4 mm × 13 cm</td>
<td>5 coils = 1 Ruby 8 mm × 24 cm</td>
<td>3 coils = 1 Ruby 12 mm × 34 cm</td>
</tr>
<tr>
<td><strong>Codman Helipaq®</strong></td>
<td>.014&quot;</td>
<td>7 coils = 1 Ruby 4 mm × 10 cm</td>
<td>4 coils = 1 Ruby 8 mm × 30 cm</td>
<td>4 coils = 1 Ruby 12 mm × 30 cm</td>
</tr>
</tbody>
</table>
Volume Advantage

- Reduce the number of coils per case
- Reduce procedure time and radiation exposure

ONE 8x30 cm RUBY™ Coil

ONE 30 cm Conventional Detachable Coil
RUBY embolization: case 1

FAV Aneurysm
RUBY embolization: case 1

FAV Aneurysm
RUBY embolization: case 1

FAV Aneurysm
RUBY embolization: case 1

FAV Aneurysm
1. **Anchor**

   POD™'s proprietary anchor technology allows for rapid securement of the dissection segment in the target vessel, with minimal repositioning required.

2. **Pack**

   POD quickly transitions to a soft packing segment, allowing dense focal packing.

3. **Detach**

   POD is fully repositionable and resheathable. Once the desired positioning is achieved, accurate, on-demand detachment allows confident vessel occlusion.
POD case 1

Male, 67 years

- Atrial Fibrillation treated with Amiodarone
- Post-Amiodarone Pulmonary Fibrosis
POD case 1

- Waiting list for bilateral Lung Transplantation
- Due to the worsening of the pulmonary conditions, he required the implant of an Avalon catheter (31F) in right jugular vein for ECMO
After 15 days with ECMO, due to anticoagulant therapy, he had a massive acute bleeding.

- Hb drops from 12 to 5 g/dl in less than one hour.
- The anesthesiologists inflated an uterine balloon into the rectum, to control the bleeding and transfer the patient to the angiographic suite.
POD case 1
POD case 1
POD case 2

- F 55Y HAEMOPTYSIS
POD

POD 4
(4mm)
POD
Vessel sacrifice

Sometimes happens that you deploy an embolization device for a vessel sacrifice, but after the release you still have flow in the vessel.

What to do?

THIS IS THE MAIN INDICATION FOR POD PACKING COIL
What I like to have from a device for vessel sacrifice?

- Long soft coil
- No shape
- Tightly packs
- NO NEED TO MEASURE VESSEL DIAMETER!
Case examples...
Case Examples: Left Varicocele

- Male
- 20Y
- Left Varicocele
Case Examples: Left Varicocele
Case Examples: Left Varicocele
Case Examples: Left Varicocele

PPC
60cm
Case Examples: Left Varicocele
Case Examples: Left Varicocele
Case Examples: Left Varicocele
...NEW FRONTIERS
POD packing coil: case 2

- Female
- 51Y
- Pseudoaneurysm of a collateral of the GDA
- Splenic artery aneurysm
POD packing coil: case 1
POD packing coil: case 1
POD packing coil: case 1
POD packing coil: case 2

PPC 45cm
POD packing coil: case 2
Take Home Points

• Embolization with Penumbra RUBY Large Volume detachable coils POD or PPC is an easy and safe option
• Gives you the opportunity to save time with their long length, and high packing density
• Less time needed for embolization can be translated with:
  Less radiation exposure for the patient and the operators.
  Less contrast medium somministration.
  Less number of coils for each procedure

WITH A PERFECT FeeLLING
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