Bail-Out Techniques when Antegrade Branch Catheterization does not work for F/BEVAR

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• **William Cook Europe/Cook Inc.**
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• **Atrium**
  – Consultant

• **Siemens**
  – Consultant
• Retrograde bail-out technique when antegrade catheterization does not work

• Other Options
  – Percutaneous
  – Loop technique
  – Brilliant Idea from Marcelo Ferreira
Bail-Out #1
Solution: left Lumbotomy
Bail-Out #2
Solution: Lumbotomy
Bail-out #3
Bail-out #5

SMA targeted with branch originally intended for CA

CA orifice is higher than the remaining branch
The principle...

Retrograde Wire via Puncture of hepatic Artery
Snaring through branch via Axilla
# How Often Does It Happen?

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEVAR for complex AAA</td>
<td>584</td>
<td></td>
</tr>
<tr>
<td>Retrograde Approach</td>
<td>3</td>
<td>0.5%</td>
</tr>
<tr>
<td>TAAA</td>
<td>305</td>
<td></td>
</tr>
<tr>
<td>Retrograde Approach</td>
<td>11</td>
<td>3.6%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>14/889</strong></td>
<td><strong>1.6%</strong></td>
</tr>
</tbody>
</table>
Reason?

- Anatomical N=6
- Technical Mistake N=6
- Planning Mistake N=2
• Retroperitoneal Approach for LRA:  N=7
  RRA:  N=2
• Laparotomy for both LRA + RRA:  N=1
• Laparotomy for CA:  N=3
• Laparotomy for SMA:  N=1
Retrograde Puncture via Laparotomy/Lumbotomy

Results

• Technical success in 13/14 cases

• Perioperative Mortality 1/14
  – MOF on 8th post-operative day

• Mean admission $17 \pm 7d$
• Increased morbidity
Retrograde Puncture
Major Complications

- Renal: N=2
- Wound Dehiscence: N=2
- Retroperitoneal Hematoma: N=1
- Respiratory: N=1
Other Options
Translumbar Puncture for Retrograde Catheterization of a Kinked Left Renal Stent After Fenestrated Endograft Repair

Adrien Hertault, MD¹, Rachel E. Clough, MD, PhD¹, Teresa Martin-Gonzalez, MD, PhD¹, Rafaelle Spear, MD, PhD¹, Richard Azzaoui, MD¹, Jonathan Sobocinski, MD, PhD¹, and Stéphan Haulon, MD, PhD¹

Journal of Endovascular Therapy
2016, Vol. 23(6) 976–981
• Retrograde wire snared from below...
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2016, Vol. 23(4) 614–617

• Iatrogenic Dissection of the Celiac Artery
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New Minimal Invasive Bail-Out by Marcelo Ferreira (for Branches only)
Snare-Ride
Conclusions

• Bail-out via laparotomy/lumbotomy can salvage a target vessel

• Minimal invasive option for branches used by Marcelo Ferreira is brilliant!
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