Cook iliac branched device for hypogastric revascularization: advantages and long-term durability: failure rates and contraindications

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Disclosure

Speaker name: Fabio Verzini

- I have the following potential conflicts of interest to report:
  - Receipt of grants/research support
  - Receipt of honoraria and travel support

From: Abbott, Cook, Gore, Medtronic

Cook iliac branch: anatomical criteria

- Aortic to iliac bifurcation: >5 cm
- Inner iliac bifurcation diameter: >15 mm
- Internal iliac landing zone:
  - Length >10 mm
  - Diameter 5-9 mm
- Adverse anatomies:
  - Iliac tortuosity
  - Iliac stenosis
  - Hypogastric aneurysms

Morphological suitability of patients with aortoiliac aneurysms for endovascular preservation of the internal iliac artery using commercially available iliac branch graft devices.

Karthikesalingam A, Hinchliffe RJ, Malkawi AH, Holt PJ, Loftus PM, Thompson MM.


66 target IIAs
25 (38%) compliant with manufacturer’s IFU

1. Most anatomical limitations can be treated by IBDs
2. The most common adverse feature was an aneurysmal IIA

Endovascular treatment of iliac aneurysms: Concurrent comparison of side branch endograft versus hypogastric exclusion

Fabio Verzini, MD, Gurdogan Partum, MD, Leola Romano, MD, Pedro De Rango, MD, Leonardo Prisco, MD, and Perugia Card, MD, FHCS, Fijn.

One-year results
Kaplan-Meier estimates of internal iliac side branch patency
Perugia experience
2006-2015; 136 IBDs

Long-term Results of Iliac Aneurysm Repair with Iliac Branched Endograft: A 5-Year Experience on 100 Consecutive Cases
G. Poliati, F. Verti, P. De Rango, D. Brambilla, C. Coscarreta, C. Ferrer, P. Cam

Iliac branch technology works:
More than 9,700 IBD used worldwide

<table>
<thead>
<tr>
<th>Author</th>
<th>N</th>
<th>IB success</th>
<th>Early mortality</th>
<th>IB patency</th>
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<tbody>
<tr>
<td>Perugia 2015</td>
<td>136</td>
<td>95.6%</td>
<td>0</td>
<td>91%</td>
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<tr>
<td>Loth 2015</td>
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<td>Pratesi 2013</td>
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<td>Wong, Greenberg 2013</td>
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<td>0.8%</td>
<td>82%</td>
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<td>Karthikeyan et al.</td>
<td>196</td>
<td>85-100%</td>
<td>88%</td>
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</table>
Early possible complication
Lesson 1: avoid/treat external iliac kinking

Long term possible complication
Lesson 2: extensive hypogastric aneurysm = predictor of complications

Lesson 3: Isolated IBD prone to common iliac enlargement & type I EL

Lesson 4: avoid short distal landing zones
Lesson 5: reinforce kinked hypogastric limbs

Conclusions

- Iliac branching with Cook IBD is safe and effective in the long term
- Persisting iliac aneurysm exclusion at 5 years
- Adaptability to a wide range of anatomies and small hypogastric diameters
- External iliac artery tortuosity & extensive Hypogastric aneurysm remain the most adverse anatomical features