Long-term results of iliac branch devices:

-Experience after 240 cases-

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Long-term results of iliac branch devices after 240 cases

Disclosures:

Proctor Cook™ Company
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It is worthwhile to preserve the flow to the HA because:

Embolization of the Internal iliac artery

How should we do it?

18 studies
634 patients

Open repair of iliac aneurysm:

Challenging because of deep pelvic location especially in obese patients and after previous abdominal surgery.

Risk for deep venous or ureter injuries or dysfunction of the sympathetic plexus.

Richardson 1988

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Iliac branched device (IBD) ZBIS - COOK®

45 / 61 mm
41 / 58 mm
10 / 12 mm
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Common iliac aneurysm (IFU):

OP-time about 45 min

≥45 mm

≥20 mm

15 – 20 mm

≤ 10 - 12 mm
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Early results 30d

<table>
<thead>
<tr>
<th></th>
<th>N=223 pt</th>
</tr>
</thead>
<tbody>
<tr>
<td>30d Mortality</td>
<td>3 (1.3 %)</td>
</tr>
<tr>
<td>Morbidity</td>
<td>14 (6.3 %)</td>
</tr>
</tbody>
</table>
Follow-up results
(Median FU 29.8 month)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aneurysm related mortality</td>
<td>1</td>
<td>(0.4 %)</td>
</tr>
<tr>
<td>Buttock claudication</td>
<td>6</td>
<td>(2.6 %)</td>
</tr>
<tr>
<td>Erectile dysfunction</td>
<td>1</td>
<td>(0.4 %)</td>
</tr>
</tbody>
</table>

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N = 223
Applicability:

Hypogastric artery aneurysm?

Criteria for IBD use

Currently, no standardized morphological criteria have been defined or validated for the use of IBDs. Objective criteria for patients to be considered candidates for the use of IBDs include the presence of a common iliac artery aneurysm >22 mm in diameter with a luminal diameter of at least 18 mm to allow for complete opening of the branch. The diameter of the internal iliac artery should be normal or at least non-aneurysmal (<12 mm) to allow for...


The most common adverse feature was an aneurysmal IIA.

Karthikesalingam et al. J Endovasc Ther 2010 Apr; 17(2):163-71
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Juxtarenal aorto-bi-iliac aneurysm with involvement of both IIAs

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Midterm outcomes of a novel technique of endovascular repair of aneurysmal internal iliac arteries using iliac branch devices

Austermann et al. JVS 2013

22 IBDs + BECS + SECS (Mean FU 8,3 M.)
No Mortality,
No Type 1 or 3 EL
Only one branch occlusion
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223 pt were treated with 264 IBD`s:
(Mean age 71±8 Y, 217 (97%) male, 4 lost in FU)

2 Groups
A: <57mm Bridging Stent Graft (BSG) n = 97
B: >= 57mm BSG n = 163

2 Groups
A: 1 BSG n = 170
B: Multiple BSG n = 90
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Kaplan-Meier – Freedom from Occlusions @ 90 Months: 82%, no differences between Groups

7.5 years
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Kaplan-Meier – Freedom from Reinterventions

2 Groups

A: <57mm BSG @ 60 months 60% p= 0.07
B: >= 57mm BSG @ 53 months 75% p= 0.07
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Kaplan-Meier – Freedom from Reinterventions

2 Groups
A: 1 Stent @ 60 months 60% p = 0.07
B Multiple Stents @ 60 months 85% p = 0.04
Conclusion:

**IBD-EVAR**

is a **durable repair** and avoids buttock claudication and erectile dysfunction.

Good sealing in the HA with long BSG and maybe 2 of them saves from reintervention and doesn` t reduce the patency rate!

Also **aneurysmal hypogastric arteries** can be treated using long BE-and SE-bridging stentgrafts.
Thank you for your attention!

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Common iliac aneurysm (IFU): Gore-IBD
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