EVAR With Flared Limbs >20 mm Or Bell Bottom Grafts Have A High Rate Of Failure And Type 1b Endoleaks

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I do not have any potential conflict of interest

Disclosure

Introduction
Arterial reinterventions after EVAR are of concern
Proximal landing zone is important
Distal landing zone?

≈20% of EVAR treated AAAs have aneurysmal common iliac arteries CIA (>16mm)\(^1,2\)
CIAs up to 25mm can be treated with flared iliac limbs\(^3\)

Intr: Aneurysmal landing zone CIA (16-25mm):

Flared limbs? IBD?

Aim of the study
risk of late type 1b endoleak after standard EVAR
iliac limbs ≥20 mm vs. iliac limbs <20mm
Methods
Retrospective analysis of all EVAR 2006-12
Endpoint: type 1b endoleak

Inclusion criteria:
available size information on the iliac stent grafts
minimum follow-up of 3 years with contrast-enhanced CT (or if they had reached the endpoint earlier)

Study collective 239 limbs
Group I n = 178 iliac limbs <20mm distal diameter
Group II n=61 iliac limbs ≥20mm

Used iliac limbs
<table>
<thead>
<tr>
<th>Iliac limb</th>
<th>Overall n=239</th>
<th>Group I n=178</th>
<th>Group II n=61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook Zenith®</td>
<td>102</td>
<td>67</td>
<td>35</td>
</tr>
<tr>
<td>GORE® Excluder® C3</td>
<td>92</td>
<td>81</td>
<td>11</td>
</tr>
<tr>
<td>Vascutek Anaconda™</td>
<td>20</td>
<td>20</td>
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</tr>
<tr>
<td>Medtronic Endurant II</td>
<td>11</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Cordis INGRAFT®</td>
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<td>5</td>
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<tr>
<td>Trivascular®</td>
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<tr>
<td>Acfix</td>
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</tr>
<tr>
<td>Endologix AXi®</td>
<td>2</td>
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<td>2</td>
</tr>
</tbody>
</table>

Results: Measurements
Preoperative diameter of distal CIA was 14.5mm (8-25mm)

Mean distal diameter of the iliac limb
17mm (11-24mm)

Mean oversizing for iliac limb sizing
17.7% (5-60%)

Follow-up
No immediate type 1b endoleak in post-implantation CT scan was documented in any iliac limb

Mean CT- follow-up was 53 months (33-116)
Results overall

n=18/239 (7.5%) type 1b endoleaks

Endoleak occurred after a mean of 37.7 months (range: 4-96)

Mean oversizing was 12.5% (range 5-27%) in these 18 cases

<table>
<thead>
<tr>
<th></th>
<th>Group I (&lt;20mm)</th>
<th>Group II (≥20mm)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endoleak 1b</td>
<td>7 (3.9%)</td>
<td>11 (15.1%)</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>No endoleak 1b</td>
<td>227</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>234</td>
<td>73</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion

EVAR with flared limbs has a significantly higher risk for type 1b endoleak in a long-term FU

Follow up is mandatory

IBD for EVAR in patients with CIA could be considered >16/18mm?

4 of the included patients died during follow-up

2 patients presented with rupture due to type 1b endoleak, 1 of these patients died

Thank you very much for your attention
DG1 muss noch herausfinden wie ich das ändern kann dass die Linie bei Gruppe 2 nicht da nach unten geht (das liegt daran dass da dann der letzte Patient sein FU hat und ein Typ 1 Endoleak hat...) die Number at risk füge ich ebenfalls noch hinzu
Daphni Gray, 9/13/2016