Anaconda™ Stentgraft in short infrarenal necks: From imaging to clinical results

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Conflicts of interest:
Proctor Vascutek™
Short infrarenal neck
How to achieve?

Provide insight in the relation between stent and vessel motion and the success or failure of stent fixation and sealing.
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Dynamic model Anaconda from 4D CT data

2 days after EVAR
What do we measure?

- Prospective study 20 patients
- Anaconda stentgraft
- Heartbeat induced motion
  - Pulsatility
- Motion over time
  - Expansion
  - Migration
Results: Progression of ‘Ring Oversize’

Top Ring Oversized state vs time

2nd Ring Oversized state vs time

**includes renal stent**
# Ring dynamics one patient

<table>
<thead>
<tr>
<th>Top ring</th>
<th>2nd ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>peak to peak</td>
<td>peak to peak</td>
</tr>
<tr>
<td>valley to valley</td>
<td>valley to valley</td>
</tr>
<tr>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>1M</td>
<td>1M</td>
</tr>
<tr>
<td>6M</td>
<td>6M</td>
</tr>
<tr>
<td>12M</td>
<td>12M</td>
</tr>
</tbody>
</table>

OLB 28

‘Migration’ 12M = 4.6 mm
Ring dynamics vs aortic wall
Conclusion

• Non-invasive contrast agent free method to monitor the stentgraft in 4D: what is happening over time?

• The oversized state drops but seems to ‘stabilize’

• Challenge is to predict failure → tailored follow-up
Conclusion