Endorepair of migrated endografts using the Altura endograft system: When and how to do it

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☒ Other(s): local PI for earlier and current ALTURA trials

☐ I do not have any potential conflict of interest
Altura for re-alignement

Complete endo re-alignement aimes for:

- Exclusion of the AAA sac and migrating graft
- Altura especially for those cases where
  - Anchor wouldn`t work (no graft to wall contact, thrombus)
  - A proximal cuff / fen. cuff will not prevent the original graft from further migration/ exclude the AAA
- no sealing is achievable with fen cuff or inverted limb (Manunga et al. CVIR Endovascular (2019) 2:34)
- Exact placement of the bottom graft end is mandatory to preserve the hypogastric
- Small access vessels → 14F introducer
Altura`s distinctive features: 14F, Craggstent, no mainbody cannulation, retrograde limb deployment for exact bottom end position.
Altura for re-alignement

Re-alignement follows the same principles as EVAR
- Appropriate access vessel diameter (14F, flexible !!)
- Sufficient landing zones (sealing and fixation)
- Respect contraindications for infrarenal EVAR
  - Same contraindications as for the index procedure (thrombus, prominent plaques)
Altura for re-alignement

- Respect contraindications for infrarenal EVAR with Altura
  - Same contraindications for EVAR
  - Sufficient distance to graft bifurcation for main body
  - Altura is limited to top end 24/27/30mm and bottom end 13/17/21mm

But it
- Allows preservation of hypogastric artery and exact placement based on retrograde limb deployment
- Makes complex cannulation procedures redundant
- Maximize proximal landing zones with asymmetric placement
Summary of a steep learning curve: optimal conditions for „re-alignement“ with Altura
Altura for re-alignement
first re-alignment case with infrarenal fixation
Altura for re-alignment: exclusion criteria

- Complete D-shaped expansion
- Only without obstacles
- Plaques
- Infolding of graft
- Prominent barestent
## AAA data

<table>
<thead>
<tr>
<th>Type of EL</th>
<th>Ia</th>
<th>Ib</th>
<th>Ia/ Ib</th>
<th>Ia/Ib</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graft MB type, length and fixation</td>
<td>50 mm Bif, suprarenal</td>
<td>80mm Bif, Suprarenal</td>
<td>80mm Tube, Suprarenal</td>
<td>110mm double tube telescoped suprarenal</td>
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<tr>
<td>Previous attempts</td>
<td>---</td>
<td>---</td>
<td>coilembolisation</td>
<td>---</td>
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<tr>
<td>Time since implant</td>
<td>2011</td>
<td>2011</td>
<td>2014</td>
<td>2015</td>
</tr>
<tr>
<td>AAA diameter change</td>
<td>4.4→5.1cm</td>
<td>5.5</td>
<td>5.0→5.4</td>
<td>6.8 aortic 3.8 iliac</td>
</tr>
<tr>
<td>Landing zone length</td>
<td>11-18mm</td>
<td>22mm</td>
<td>Mainbody Iliacs &gt;70mm</td>
<td>23mm</td>
</tr>
<tr>
<td>Immediate techncal success: sealing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clinical success</td>
<td>Yes 30d, 6 mo</td>
<td>Yes 30d, 6 mo</td>
<td>Yes 30 d, 3 mo</td>
<td>No 30d, type II EL</td>
</tr>
</tbody>
</table>
In conclusion

The distinct device features of the Altura endograft do permit the use

- for complete re-alignment of migrated bifurcated, monotube or tube-in-tube endografts (EL Ia/Ib)
- When contraindications for EVAR/ device limitations are respected
- The previous graft and neck morphology allow full expansion of the bare metal stent above and the D-shape mainbody below the renal target vessels
- No need for mainbody and 14 F especially for tortuous small access vessels with percutaneous access under LA,
- Users are addressed for further data collection
Thank you for your attention

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