Fate Of The Distal (Abdominal) Aorta After Endovascular Or Open Treatment Of TBADs: What Secondary Treatment May Be Required And Which Treatment Is Best

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Acute Aortic Dissections

<table>
<thead>
<tr>
<th>Type</th>
<th>Stanford type</th>
<th>Prehospital death</th>
<th>Admitted to Hospital</th>
<th>30-d mortality</th>
<th>Hospital survivors</th>
<th>5 yr mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>71</td>
<td>18</td>
<td>32</td>
<td>21</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Type B</td>
<td>29</td>
<td>53</td>
<td>29</td>
<td>25</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Clinical outcomes

68 patients with 1-stage resection and graft replacement of the ascending aorta, the aortic arch, and varying lengths of the DTA.

The overall growth rate of the distal aorta for the entire cohort was 0.10 mm/year.

Actuarial freedom from reoperation for aneurysmal growth of the distal aorta at 5 and 10 years was 96.3% and 93.3%, respectively.

Open surgical repair for chronic type B aortic dissection

Evidence, including a systematic review by the authors, suggests:

- 13.3% overall
- 11.3% in the contemporary series.

Indication for reintervention not mentioned

Disclosures

- Proctor/speaker for COOK Medical

- 69 patients
- 43% CTD
- 77% prior aortic repair
- 5.8% 30-d mortality
- 6% SCI
Freedom from death and reoperation

Reintervention on distal aorta

<table>
<thead>
<tr>
<th>Aortic segment</th>
<th>No. (%) of reinterventions (N = 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aortic root</td>
<td>3 (15)</td>
</tr>
<tr>
<td>Proximal contiguos aorta</td>
<td>3 (15)</td>
</tr>
<tr>
<td>Aortic graft leak or other reason</td>
<td>10 (50)</td>
</tr>
<tr>
<td>Distal contiguos aorta</td>
<td>3 (15)</td>
</tr>
<tr>
<td>Abdominal aorta</td>
<td>1 (5)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100)</td>
</tr>
</tbody>
</table>

Figure from Christoph A. Nienaber et al. Circ Cardiovasc Interv. 2013;6:407-416
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TEVAR in type B Dissection

Aim (for the long-term):
- False Lumen thrombosis & Aortic remodeling

Failure:
- Increase thoracic aorta
- Increased chance of contiguous distal aortic dilatation

The VIRTUE Registry

<table>
<thead>
<tr>
<th>Day from intake</th>
<th>FL thrombosis @ level CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>30</td>
<td>0.0%</td>
</tr>
<tr>
<td>90</td>
<td>0.0%</td>
</tr>
</tbody>
</table>


Conclusion:
- Feasible approach for management of TBD
- Improved true lumen perfusion and diameter
- Fails to suppress complete false lumen patency
- @ 12 months: complete false lumen thrombosis
  - Thoracic level: 70.4%
  - Abdominal level: 13.5%
Redo Thoracoabdominal Aortic Aneurysm Repair: A Single-Center Experience Over 25 Years

1900 DTAA/TAAA repairs
- 266 redo operations

Younger patients
Mortality: 23%

Conclusions
- Evidence in literature is scarce
- Both patients treated for type A and type B dissection need lifelong FU of their entire aorta
- Open repair of aortic dissections show adequate long-term results in non-CTD patients
- CTBD treated with TEVAR is more likely to need additional treatment of the distal aorta.
- Redo-open repair shows high morbidity & mortality
- Fenestrated/branched EVAR is feasible and shows adequate short-term results.