Open TAAA repair in patients with connective tissue disorders

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Disclosure

Speaker name:

Roberto Chiesa

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)

☒ I do not have any potential conflict of interest
Connective tissue disorders

**Undisputed territory of open surgery!**

<table>
<thead>
<tr>
<th>Recommendation 72</th>
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<tbody>
<tr>
<td>In patients with genetic syndromes associated with thoracic aortic aneurysm dilatation ≥50 mm, surgery should be considered</td>
<td>IIA C</td>
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<th>Recommendation 73</th>
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<tr>
<td>In patients with a genetic syndrome and enlarged aortic diameter ≤50 mm, surgery may be considered according to body surface area in patients of small stature or for rapid progression or more aggressive diseases or with a family history of dissection</td>
<td>IIB C</td>
</tr>
</tbody>
</table>
When open?

Whenever is possible.

How to perform open surgery in CTD?
Surgical strategy

Lung sparing dissection in case of adhesions
Surgical strategy

Low traumatic sutures

- small needles
- teflon felts and strips
Surgical strategy

Reduce native tissue reimplantation to prevent late dilatation

→ branched grafts
Surgical strategy

Little tissue rettachment also for intercostal a.
Surgical strategy

Frozen Elephant Trunk in case of Arch involvement
Surgical strategy

1st Step: FET

2nd Step: Multibranched graft repair
# Current results in CTD patients

San Raffaele experience 2010 - 2021

<table>
<thead>
<tr>
<th>Open TAAA repair (2010 – 2021)</th>
<th>CTD</th>
<th>Other TAAA</th>
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<tbody>
<tr>
<td>701 pts</td>
<td>65 pts</td>
<td>636 pts</td>
</tr>
<tr>
<td>Perioperative mortality</td>
<td>2 (3.0 %)</td>
<td>49 (7.7 %)</td>
</tr>
<tr>
<td>Paraplegia / paraparesis</td>
<td>4 (6.2 %)</td>
<td>53 (8.3 %)</td>
</tr>
<tr>
<td>Mild / moder. renal failure</td>
<td>6 (9.2 %)</td>
<td>93 (14.6 %)</td>
</tr>
<tr>
<td>CVVH / hemodyalisis</td>
<td>1 (1.5 %)</td>
<td>21 (3.3 %)</td>
</tr>
<tr>
<td>Pulmonary complications</td>
<td>7 (10.8 %)</td>
<td>94 (14.8 %)</td>
</tr>
</tbody>
</table>
… and what about Endo in CTD?

Selective indications!
Selective indications for Endo in CTD

I – With surgical landing zones

TEVAR after FET in pt. with previous Type IV repair
Selective indications for Endo in CTD

II – To reduce invasiveness

TEVAR to convert an Extent II in an Extent IV TAAA

San Raffaele Scientific institute – “Vita-Salute” University

Roselli E.E. Annals of cardiothoracic surgery 2014
Selective indications for Endo in CTD

III – In pts unfit for surgery

- Previous multiple surgeries / Frozen chest
- ↓ Ejection fraction
- Valvulopathy

And in emergencies cases !
Conclusions

**TAAA Open repair in CTD**

- Gold standard when feasible
- Surgical improvements led to acceptable results in experienced centers

**TAAA Endo repair in CTD**

- Alternative/complementary option in selected pts