The Case For Treating All Uncomplicated Acute TBAD Patients With TEVAR

Ross Milner, MD
45th Annual VEITH Symposium
Co-Director, Center for Aortic Diseases
Professor of Surgery
November 13, 2018

The Case Against TEVAR For All Uncomplicated Acute TBAD Patients And For Good Medical Treatment Alone For Most: What Constitutes Good Medical Treatment

Disclosures
• Consultant – Medtronic; WL Gore

• Ali and I are good friends
Disclosures

- Consultant – Medtronic; WL Gore
- Ali and I are good friends
- Nickname – “Best Dressed Vascular Surgeon”
- Gets confused easily:
The Case *For* Treating All Uncomplicated Acute TBAD Patients With TEVAR

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### INSTEAD XL: Key Results

**TEVAR FOR AORTIC DISSECTION**

- PREVENTS LATE EXPANSION; ENCOURAGES AORTIC REMODELING

<table>
<thead>
<tr>
<th>All-Cause Mortality</th>
<th>Aorta-Specific Mortality</th>
<th>Disease Progression</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
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**OMT n=68**

**TEVAR+OMT n=72**

<table>
<thead>
<tr>
<th>Year</th>
<th>All-Cause Mortality</th>
<th>Aorta-Specific Mortality</th>
<th>Disease Progression</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>11.3%</td>
<td>8.2%</td>
<td>12.4%</td>
</tr>
<tr>
<td>1</td>
<td>11.3%</td>
<td>8.2%</td>
<td>12.4%</td>
</tr>
<tr>
<td>5</td>
<td>19.1%</td>
<td>11.1%</td>
<td>27.0%</td>
</tr>
</tbody>
</table>

**Absolute Risk Reduction**

- All-Cause Mortality: 12.4%
- Aorta-Specific Mortality: 6.9%
- Disease Progression: 8.2%

### What Happens When We Don’t Treat

### What Happens When We Do Treat
Case Example

- Discharged home
- Follow-up in clinic in one month
- Repeat imaging

Comparison of CTA Imaging
Treatment

- Large FL at presentation (> 22 mm)
- Total aortic diameter > 44 mm
- Rapid FL expansion in one month
- TEVAR (Subacute phase)

6-month imaging
This suggests that patients with an aortic diameter > 44 mm likely would benefit from earlier intervention, such as TEVAR, as medical management alone leads to high mortality in this subset of patients.

Retrograde Type A Dissection

- TAA: 0.9%
- BTAI & PAU: 0.0%
- Acute Dissection: 8.4%
- Chronic Dissection: 3.0%

OR (relative TAA):
- 10 for Acute Aortic Dissection
- 3.4 for Chronic Aortic Dissection
Conclusions

- Elective TEVAR leads to favorable aortic remodeling and survival
- Type A dissection rate is low and TEVAR "does not have a large effect on this risk"
- Medical management alone is not sufficient in most patients