False Lumen Obliteration Improves Survival After TEVAR for Complex TBADs.
How To Do It.

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Thoracic Aortic Dissections

Partial False Lumen Thrombosis Associated with Increased Mortality

TEVAR for TBAD ± False Lumen Embolization (FLE)

Purpose

To evaluate the implications of false lumen embolization (FLE) to induce thrombosis during TEVAR for acute complicated and chronic thoracic aortic dissections.
Since 2004, 106 patients presented with acute complicated and chronic TBAD with aneurysmal degeneration and underwent TEVAR ± EVAR with or without false lumen embolization (FLE) 

- Ruptured TBAD patients were excluded from analysis
- All data was prospectively maintained

**TEVAR for TBAD ± False Lumen Embolization (FLE)**

- Stentgraft in true lumen
- Persistent false lumen flow

**TEVAR for TBAD ± False Lumen Embolization (FLE)**

- Stentgraft in true lumen
- Persistent false lumen flow
- False lumen embolization
TEVAR for TBAD + False Lumen Embolization (FLE)

- Stentgraft in true lumen
- Persistent false lumen flow
- False lumen embolization
- FL thrombosis

TEVAR for TBAD ± False Lumen Embolization (FLE)

Manish Mehta, Vascular Health Partners
### TEVAR for TBAD ± False Lumen Embolization (FLE)

<table>
<thead>
<tr>
<th></th>
<th>TEVAR ± EVAR + FLE</th>
<th>TEVAR ± EVAR - FLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>40</td>
<td>66</td>
</tr>
<tr>
<td>Age</td>
<td>62 yrs.</td>
<td>64 yrs.</td>
</tr>
<tr>
<td>Female</td>
<td>33%</td>
<td>40%</td>
</tr>
<tr>
<td>HTN</td>
<td>78%</td>
<td>71%</td>
</tr>
<tr>
<td>CAD</td>
<td>38%</td>
<td>31%</td>
</tr>
<tr>
<td>COPD</td>
<td>13%</td>
<td>13%</td>
</tr>
</tbody>
</table>

### Technical Success
- 100%

### All non-Fatal Complications
- 14% (35.0%)
- 27% (40.9%)

### Paraplegia
- 1 (2.5%)
- 1 (1.3%)

### TEVAR for TBAD ± False Lumen Embolization (FLE)

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<tr>
<td>n</td>
<td>42</td>
<td>66</td>
</tr>
<tr>
<td>Aneurysm size</td>
<td>6.2cm (mean)</td>
<td>5.7cm (mean)</td>
</tr>
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TEVAR for TBAD ± False Lumen Embolization (FLE)

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<th>TEVAR ± EVAR - FLE</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revisions (Embo/ Extension)</td>
<td>15 (37.5%)</td>
<td>21 (31.8%)</td>
<td>NS</td>
</tr>
<tr>
<td>30-day Mortality</td>
<td>1 (2.5%)</td>
<td>11 (16.7%)</td>
<td>0.01</td>
</tr>
<tr>
<td>Cumulative 5-year Survival</td>
<td>28 (87.5%)</td>
<td>50 (75.8%)</td>
<td>0.01</td>
</tr>
</tbody>
</table>

- Over 1/3 of patients require secondary procedures including FLE and stentgraft extensions.
- These initial findings would suggest that adjunctive FLE technique should be considered when managing complicated aortic dissections.

Conclusions

- FLE during TEVAR for complicated acute and chronic TAD is associated with a lower 30-day mortality and improved long-term survival.
- Over 1/3 of patients require secondary procedures including FLE and stentgraft extensions.
- These initial findings would suggest that adjunctive FLE technique should be considered when managing complicated aortic dissections.