FALSE LUMEN OCCLUSION
TECHNICAL ASPECTS

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Disclosure

Speaker name:

........SONIA RONCHEY

I do not have any potential conflict of interest
TEVAR is the first line treatment for Acute complicated type B dissection

**Expert Consensus Document on the Treatment of Descending Thoracic Aortic Disease Using Endovascular Stent-Grafts**

Lars G. Svensson, MD, PhD, Nicholas T. Kouchoukos, MD, D. Craig Miller, MD, Joseph E. Bavaria, MD, Joseph S. Coselli, MD, Michael A. Curi, MD, MPA, Holger Eggebrecht, MD, John A. Elefteriades, MD, Raimund Erbel, MD, Thomas G. Gleason, MD, Bruce W. Lytle, MD, R. Scott Mitchell, MD, Christoph A. Nienaber, MD, Eric E. Roselli, MD, Hazim J. Safi, MD, Richard J. Shemin, MD, Gregorio A. Sicard, MD, Thoralf M. Sundt III, MD, Wilson Y. Szeto, MD, Grayson H. Wheatley III, MD

*Ann Thorac Surg 2008*

**Surgical Management of Descending Thoracic Aortic Disease: Open and Endovascular Approaches**

A Scientific Statement From the American Heart Association

Michael A. Coady, MD, MPH, Chair; John S. Ikonomidis, MD, PhD, FAHA; Albert T. Cheung, MD; Alan H. Matsumoto, MD, FAHA; Michael D. Dake, MD; Elliot L. Chaikof, MD; Richard P. Cambria, MD; Christina T. Mora-Mangano, MD; Thoralf M. Sundt, MD; Frank W. Sellke, MD, FAHA; on behalf of the American Heart Association Council on Cardiovascular Surgery and Anesthesia and Council on Peripheral Vascular Disease

*Circulation 2010*
TEVAR is good option for
Acute uncomplicated type B dissection

Endovascular Repair of Acute Uncomplicated Aortic Type B Dissection Promotes Aortic Remodelling: 1 Year Results of the ADSORB Trial

Figure 3. Evolution of the false lumen by treatment group during the one year follow up. At 1 year, the false lumen decreased in size in the TAG+BMT group but did not so in the BMT group ($p < .001$).

Figure 4. Aortic diameter was similar at baseline and the difference at 1 year did not reach statistical significance ($p < .062$).
GOALS OF TEVAR

ACUTE PHASE

• CLOSE PRIMARY ET
• RESTORATION OF TRUE LUMEN FLOW
• ABROGATION OF IMPENDING/ RUPTURE
• RELIEF OF MALPERFUSION

DELAYED BENEFITS

• OBLITERATION OF THE FL
• AVOID RISK OF ANEURYSMAL DILATATION AND RUPTURE
Figure 1. Kaplan–Meier Mortality Curve Stratified According to the Status of the False Lumen. P values were calculated by the log-rank test. Overall denotes comparison of all three curves.
<table>
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<tr>
<th></th>
<th>Total FL Thrombosis</th>
<th>Partial FL Thrombosis</th>
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<td>7%</td>
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<td>Zhu 2015</td>
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<td>Huang 2015</td>
<td>95%</td>
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<td>72</td>
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<td>Cambria 2015</td>
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<td>50</td>
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<td>Brunkwall (ADSORB) 2014</td>
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<td>70%</td>
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<td>Nienaber (INSTEAD XL)</td>
<td>66%</td>
<td>7%</td>
<td>72%</td>
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Swedish Multicenter Study

- 129 TBAD
- 9 yrs (’94-’05)
- Fup 14 mths

Thrombosis: 80%, 50%, 16%
Growth: 5%
How to manage False Lumen

- ATBD
- SG Covering ET
- SG Covering ET +/- Uncovered Stent
- Fenestration

THORACIC FL PATENCY AFTER EG

- SG EXTENT
  - + Coils/Glue
  - + Occlusion Device

DISTAL EVOLUTION

- + distal SG (FEVAR/BEVAR)
- + distal OR
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<td>Coils</td>
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<td>Smith EVT 2009</td>
<td>Coils</td>
<td>1</td>
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<tr>
<td>Riga JVIR 2009</td>
<td>Coils &amp; Onyx</td>
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<td>Hager JVS 2008</td>
<td>Coils &amp; Covered Stents</td>
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LSA + INTERCOSTAL
RESIDUAL TYPE A

LCCA-LSA BYPASS + LCCA SANDWICH + LSA PLUG
FL PATENCY FROM LSA/GUTTERS/DISTAL
DISTAL ESTENSION + COILS
SECOND STEP GLUE (ONIX)
DISTAL EXTENTION AND PLUG

2005 > 2011
INCREASED FL DIAMETER

2011: DISTAL EXT + PLUG
DECREASED FL DIAMETER
HYBRID TECHNIQUE
<table>
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<tr>
<th>Author</th>
<th>Embolic Agent</th>
<th>N</th>
<th>F-Up mnths</th>
<th>Complete Thrombosis</th>
<th>Sac = or &gt;</th>
<th>Sac &lt;</th>
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<td>5</td>
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</table>
How to manage False Lumen

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- SG Covering ET +/- Uncovered Stent
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THORACIC FL PATENCY AFTER EG

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DISTAL EVOLUTION

- + distal SG (FEVAR/BEVAR)
- + distal OR
“HYBRID” TREATMENT

FEM-FEM CEC
CSF DRAINAGE
“HYBRID” TREATMENT
STAGED “HYBRID” TREATMENT
Conclusions

• FL patency is one of the main causes of disease progression

  – Embolization strategies have not yet changed the natural history of the disease
  – Fenestrated/branch are a promising solution