Uncomplicated Type B Dissection

- 45 - 55% survival rates 48% to 82% after 5 years
- Large percentage of mortality aorta-related
  - Aortic rupture or extension of the dissection
  - Aortic progression with OMT @ 5 yrs 46% (INSTEAD XL)
- 1-10% in-hospital mortality
  - Aortic Rupture
  - Sudden Malperfusion
• Recurrent / Refractory Pain and Hypertension

In-hospital mortality after Medical management

Uncomplicated Type B Dissection: In-H mortality/compl.

• Location of Proximal Entry Tear

A New Mechanism by Which an Acute Type B Aortic Dissection Is Primarily Complicated, Becomes Complicated, or Remains Uncomplicated

Uncomplicated Type B Dissection: In-H mortality/compl.

12.6% initially uncomplicated B patients developed in-hospital complications

extension of dissection (39.7%)
hypotension (23.8%)
rupture (17.5%)
limb ischemia (15.9%)
CVA (3.2%)

Uncomplicated Type B Dissection: In-H mortality/compl.

Diameter of Proximal Entry Tear

CONCLUSIONS: A large entry tear located in the proximal part of the dissection identifies a high-risk subgroup of patients who may benefit from earlier and more aggressive therapy.
Predictors of Late Aortic Growth

- Partial Lumen Thrombosis

- Number of Entry Tears

- Circular shape FL

273 aortic segments, expansion:

- PT: 102/125 (81.6%)
- PLT: 102/125 (81.6%)
- CT: 15/13 (65.4%)

CONCLUSIONS

The aortic growth rate among patients with ARAD with a partially thrombosed false lumen seemed to be higher during follow-up than in patients with complete thrombosis or a parent false lumen. Therefore, patients with partial thrombosis...
Predictors of Late Aortic Growth

- Saccular FL formation

Aortic diameter

Total initial diameter > 40 mm
FL > 22 mm

Uncomplicated Type B Dissection: TEVAR vs BMT

- Benefit of TEVAR for all end points at 5 years
  - All-cause mortality (8% versus 36.9%; P = 0.001)
  - Aorta-specific mortality (5% versus 16.9%; P = 0.005)
  - Progression of dissection (4.1% versus 28.1%; P = 0.004)

5-yr mortality
- TEVAR 15.5%
- Medical 29.0%
Acute uncomplicated type B dissections randomized: BMT vs. TEVAR

- **Incomplete false lumen thrombosis**
  - 13 (43%) TEVAR vs. 30 (97%) BMT (p < .001)
- **TL increase** TEVAR vs. no change BMT
- **FL reduction** in the TEVAR group vs. FL increase in BMT group

Uncomplicated Type B Dissection: BMT

**Recommendations**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Class</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td>Acute uncomplicated type B AAD treated with TEVAR</td>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>Acute uncomplicated type B AAD treated with BMT</td>
<td>2</td>
<td>B</td>
</tr>
</tbody>
</table>

**2010**

Conclusions:
- The majority of patients with acute type B dissection will fail medical therapy over time as evidenced by an 8-year intervention-free survival of 41%.

Uncomplicated Type B Dissection: always TEVAR?

IRAD 1996-2013: 17 yrs experience

**Trends in Management**
• Uncomplicated OMT mortality 6.4% (TEVAR 10.2% - Open 17.5)

• Serious complications can occur after TEVAR, such as endoleaks, retrograde type A dissection and conversion to open surgery

Table 1. Demographics and Patient History of All Patients With Type B Aortic Dissection

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>P-Value</th>
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</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>356</td>
<td>90</td>
<td>446</td>
<td>0.001</td>
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<tr>
<td>Range y</td>
<td>62</td>
<td>36</td>
<td>98</td>
<td>0.001</td>
</tr>
<tr>
<td>Age (y)</td>
<td>27</td>
<td>28</td>
<td>55</td>
<td>0.001</td>
</tr>
</tbody>
</table>

• Positive aortic remodelling

6 yrs FU

5 yrs FU

2010 2015
Conclusions

- Overall B dissections = 100 pts

<table>
<thead>
<tr>
<th>Complicated</th>
<th>45 pts</th>
<th>IRAD</th>
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</thead>
<tbody>
<tr>
<td>Uncomplicated</td>
<td>55 pts</td>
<td></td>
</tr>
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</table>

- In-H Compl. 10-15% (about 6 pts) = 49

- L-T Dilat. 46% (about 23 pts) = 23

- L-T Dilat. 59% (about 26 pts) = 26

- L-T Dilat. 59% (about 20 pts) = 20
## Conclusions

- Overall B dissections = 100 pts

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- L-T Dilat. 59% (about 29 pts) = 20

1/4° to 1/5° of pts seem do not dilate overtime

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**With Uncomplicated Acute TBAD Patients, What Factors Point To Deterioration On Medical Treatment And The Need For TEVAR: When Should TEVAR Be Performed: Based On New Data From The IRAD Registry**

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