Type B Dissection

On Whom to Operate on and When to do it

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Disclosure

Nothing to disclose

Uncomplicated Type B dissections

Type B Dissection Sub-Categories

- Acute Complicated
  - TEVAR Established
  - Malperfusion

- Chronic
  - Potential reasons for intervention
  - Aneurysm degeneration
    - Up to 30% become aneurysmal
  - Rupture
  - Dissection extension
  - Malperfusion or ischemic events

Type B Dissection Sub-Categories

• Uncomplicated
  • Potential reasons for intervention
    • “High Risk” patients

Can we Identify high risk patients that could benefit from early TEVAR than Best Medical Therapy alone?

What are the risks of treatment?

Benefits and Risks of Endovascular vs BMT

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Literature-Based “High Risk” Predictors used in Retrospective Imaging Evaluation

Initial Presentation:
• Primary entry tear diameter ≥ 10 mm
• Primary entry tear location
• Total aortic diameter ≥ 4 cm
• False lumen diameter ≥ 22 mm
• Partial false lumen thrombosis
• Fusiform index ≥ .64

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Long-Term Outcome of Aortic Dissection With Patent False Lumen

184 patients (108 type A) with acute dissection
Followed for 6.4 years
49 patients died during follow up, 31 suddenly
81% survived for 5 years

Entry tear size ≥ 10 mm and entry tear in a proximal location was associated with increased dissection-related adverse events and mortality.

Conclusion: Type B aortic dissections that are not symptomatic but have entry tears ≥ 10 mm in a proximal location should be considered for TEVAR given that 63% of deaths during follow up were sudden with no precedent symptoms.

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False Lumen Measurement

Initial Presentation

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Literature-Based “High Risk” Predictors used in Retrospective Imaging Evaluation

Partial False Lumen Thrombosis

1 year follow-up

Literature-Based “High Risk” Predictors used in Retrospective Imaging Evaluation

Initial Presentation:
- Primary entry tear diameter $\geq 10$ mm
- Primary entry tear location
- Total aortic diameter $\geq 4$ cm
- False lumen diameter $\geq 22$ mm
- Partial false lumen thrombosis
- Fusiform index $\geq .64$

Summary

- Literature-based “high risk” predictors may help identify uncomplicated Type B dissection patients that could benefit from early TEVAR intervention
- Early TEVAR intervention should be accompanied by evidenced-based medical management
  - Calcium channel blockers (decreased central aortic pressure)
  - Beta blockers (decrease heart rate)
  - HMG CoA Reductase inhibitors
  - ACE/ARBs
Thank you for your attention


