Delayed TEVAR Is The Best Treatment For Some BTAIs - Even Some With Grade III: Why Is This So?

Ravi Rajani on behalf of Robert S. Crawford, MD FACS
Associate Professor of Surgery
Emory University SOM
Division of Vascular Surgery & Endovascular Therapy

DISCLOSURES
• None

SVS GRADING

DELAYED REPAIR IMPROVES OUTCOMES

18 studies, 937 patients with traumatic PSA
21% (197) managed non-operatively
-4% required late interventions
-2% aortic mortality
• Poor long term follow-up at this time

65% lower mortality

Inherently more stable injuries
Delayed repair is possible, not necessarily beneficial? Selection bias...
TBI PROGRESSION

Non-op: 2/22 (9%)
Early repair: 10/29 (34%) \( P < 0.05 \)
Delayed: 0/24 (0%) \( P = 0.001 \)

Early Repair OR 1.5 (95% CI 1.1 – 2.1)

Not Just selection bias: Case for delayed repair
- Other injuries take priority (spleen, liver, lung, small bowel)
- TBI: Physiologic factor that is detrimental about early procedures
  - Other acute injury models (damage control)
  - Aortic dissection sub-acute phase

How to avoid delay in a grade III that will rupture

LESION DIRECTED THERAPY

GIII: INDICATIONS FOR EARLY TEVAR
**Recent Report**

**SVS Injury Grade Predicts Death**

Early clinical/imaging variables (mediastinal hematoma, lesion/normal aortic diameter ration) **Do not predict aortic related mortality**

Aortic related deaths n=18  
Comparison group n=31  
Bootstrap analysis  
88%  
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Recent Report

Identification of additional Imaging and physiologic data that predicts the need for early repair.

THE ANSWER

18 studies, 937 patients with traumatic PSA
21% (197) managed non-operatively

• Multi-institutional search patients with traumatic PSA (Grade III)
• Stable enough for imaging
• Elected for non-operative management
• Confirmed Aortic Death

THANKS