


## Open Thoracoabdominal Repair: Tips for Patients with Connective Tissue Disorders


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## Disclosures:

None




## Historical Perspective



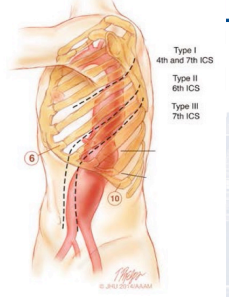
*“There is no disease more conducive to clinical humility than aneurysm of the aorta.”*

*“The tragedies of life are largely arterial.”*




## Technical Notes for TAAA

- Preoperative spinal drain
- Single skin incision w 2 thoracotomies
- Partial left heart bypass (vs. CBP)
- Sequential aortic clamping
- Cold renal flush
- Commercial branch grafts
  - Vascutek® Gelweave™ Plexus Graft
  - Vascutek® Gelweave™ Coselli Thoracoabdominal Graft
- Intercostal reimplantation
  - Determined based on motor evoked potentials

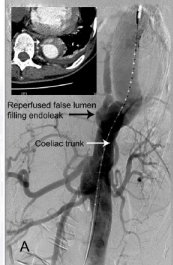



J Vasc Surg. 2016 Aug;64(2):520-525.

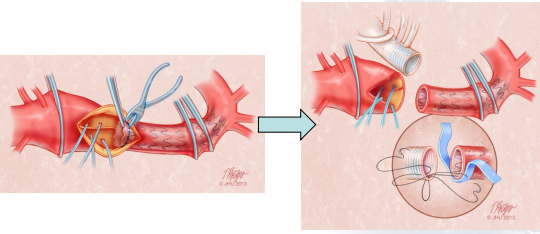



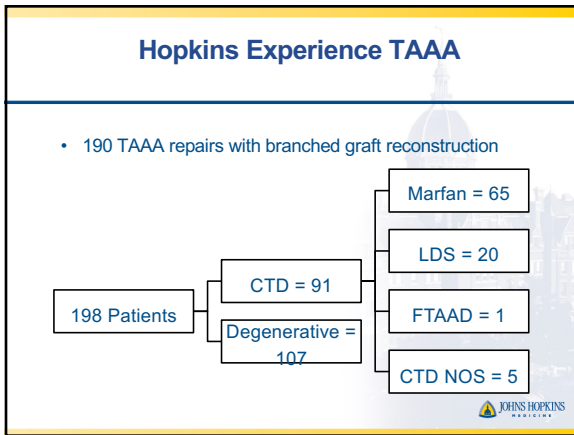
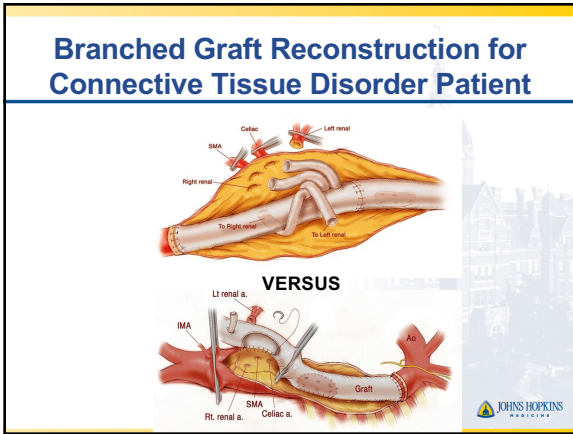
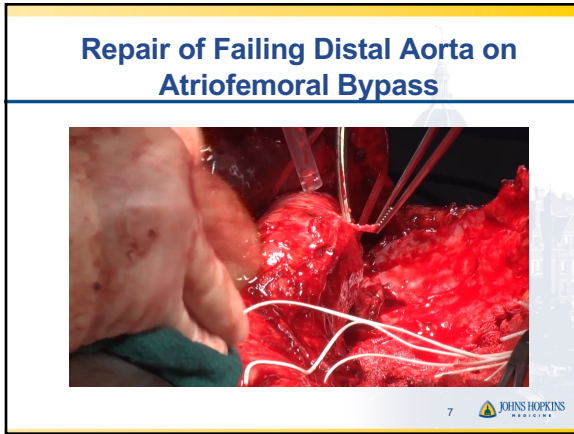
## Fate of Aorta after TEVAR in MFS

- Geisbusch, 8pts (JEVT, 2008):
  - Perioperative complications in 25%.
  - 38% reintervention rate
  - 50% patients developed de-novo aneurysms.
- Nordon, 7pts (JVS, 2009):
  - 14% mortality
  - 33% reintervention rate for endoleak.
  - 83% false lumens thrombosed.
  - Yet all DTAs continued to dilate (7mm/yr on average).

## Explant of Distal TEVAR



### Results: Perioperative Outcomes

Characteristic	CTD (N=91)	Degenerative (N=108)	p-value
In-hospital mortality	5.1% (5)	5.6% (6)	0.40
Acute branched graft thrombosis	0.0% (0)	6.5% (7)	0.16
Perioperative complication*			
Acute kidney injury	17.2% (5)	19.4% (21)	0.79
Hemodialysis	6.9% (2)	13.9% (15)	0.53
Pneumonia	10.3% (3)	11.1% (12)	1.0
Urinary tract infection	10.3% (3)	9.3% (10)	1.0
Respiratory failure	10.3% (3)	7.4% (8)	0.70
Bowel ischemia	0% (0)	8.3% (9)	0.11
Stroke	6.9% (2)	2.8% (3)	0.29
VTE	3.5% (1)	3.7% (4)	1.0
Bleeding	0% (0)	3.7% (4)	0.58
Lower extremity ischemia	3.5% (1)	2.8% (3)	1.00
Spinal headache	6.9% (2)	1.9% (2)	0.20
Heart failure	0% (0)	3.7% (4)	0.58
Myocardial infarction	0% (0)	2.8% (3)	1.0
Surgical site infection	3.5% (1)	1.9% (2)	0.51
Atrial fibrillation	3.5% (1)	0.9% (1)	0.38
Paraplegia	5.1% (1)	0.9% (1)	0.38

### “State of the Art” TAA Aortic Surgery

- Preoperative CSFD (proven)
- MEP monitoring (high negative predictive value JHH, N=520)
- Direct bypasses to origins to avoid recurrent aneurysm
- Cold renal perfusion with saline (proven)
- Distal perfusion support
  - Direct visceral perfusion cannulas
  - Femoral perfusion
  - Or both

