

Hybrid Intercostal Artery Bypass for TAAA Repair

Shahab TourSavadkahi M.D.
Associate Professor of Surgery
Co-Director of Aortic Center
University of Maryland Medical Center & School of Medicine

Acute Aortic Arch Dissection (2012)

- (53-yo) presented with acute dissection of aortic arch and multiple visceral malperfusion
- Underwent endo-fenestration (didn't work)
- Retrograde Iliac-SMA bypass and left nephrectomy for wire injury and hemorrhage
- Open abdomen and resection of 170 cm small bowel + gallbladder

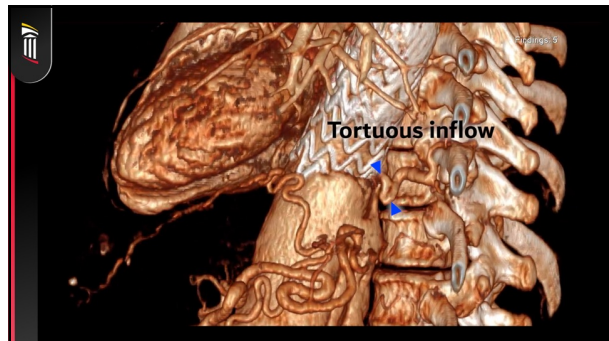
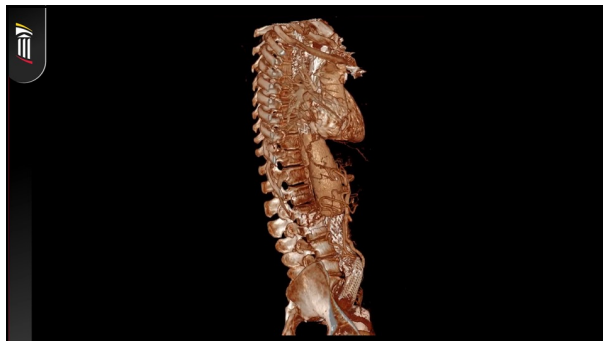
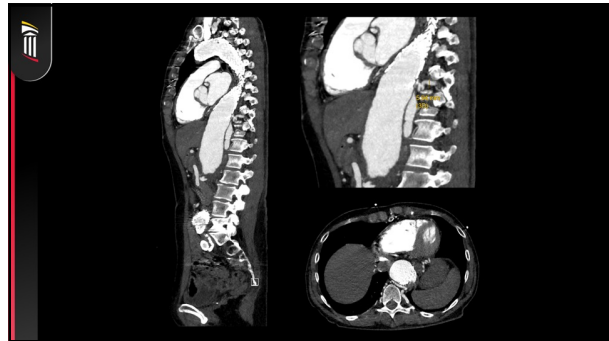
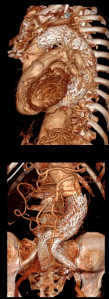
Acute Aortic Arch Dissection (2012)

Hybrid aortic arch repair (2015)

- Debranching with *bilateral CCA-SCA bypasses* followed with ascending aorta to *bilateral CCAs bypass and TEVAR*

EVAR for infra renal aneurysm (2016)

- Endologix and CTAG



Rationale for the Procedure

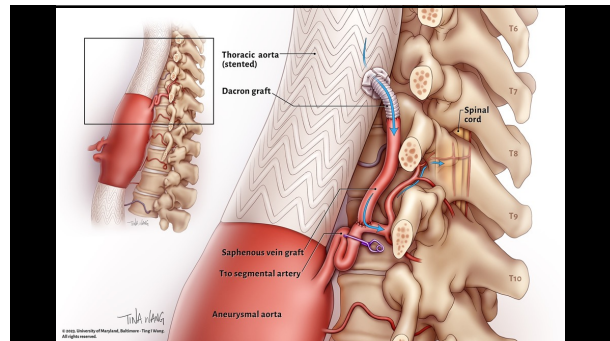
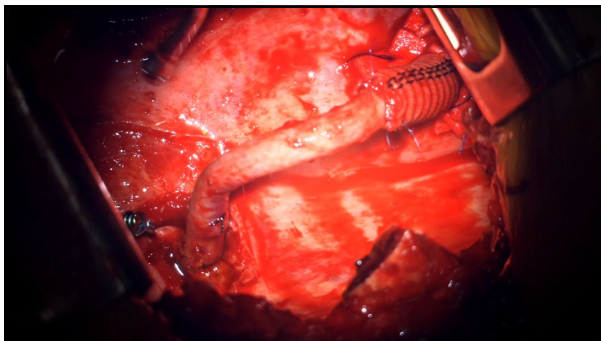
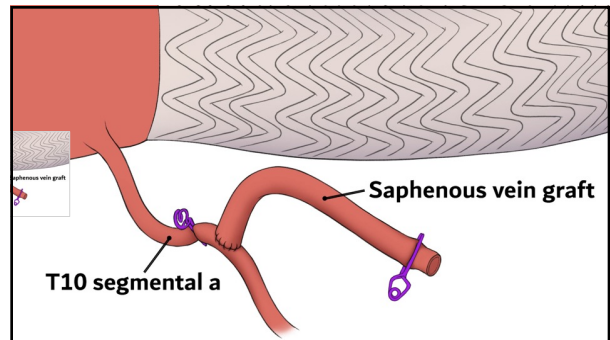
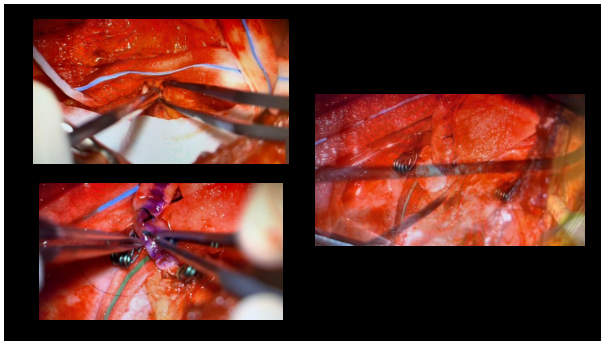
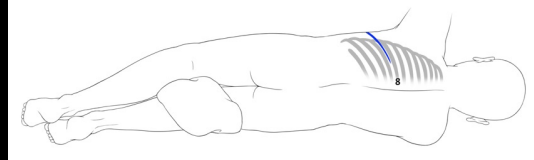
- Both SCAs bypasses are occluded, and VAs are retrograde flow
- Left hypogastric artery is coiled

High risk cord ischemia

- Tortuosity of T10 segmental artery makes it unfavorable target for endovascular stent

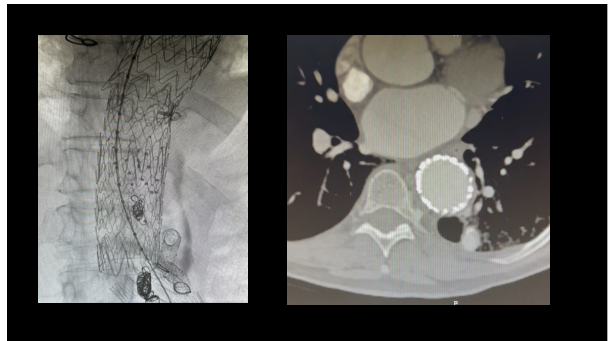
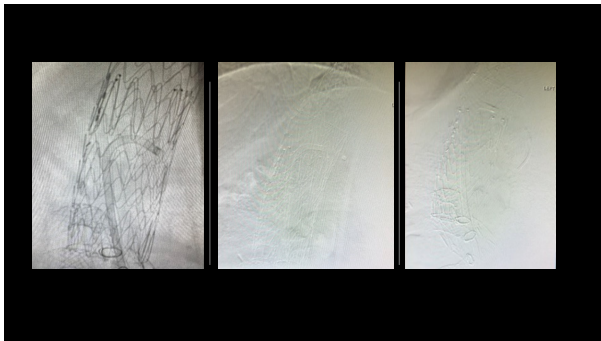
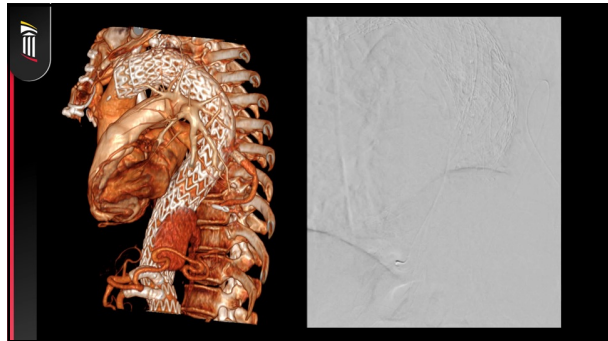
Patient Positioning

- Right decubitus position
- 8th intercostal incision



Immediate Clinical Outcome

- 2 days post surgery, patient underwent 3 vessels BEVAR treatment of remaining untreated aortic segment
- No spinal cord ischemia
- Neurologically intact



Clinical Outcome

- No objective or subjective signs of weakness in lower extremities
- Complete remodeling of TAA