

Hybrid Approach to Repair of Large Aortic Arch Pseudoaneurysm Associated with Multiple Prior Interventions for Coarctation of the Aorta

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Disclosures

I have no conflicts to disclose

Case Presentation

- 51yo M w coarctation of the aorta and 3 prior congenital aortic reconstructions (birth, age 12, age 17)
- Progressive dyspnea and chest / back pain
- **CTA:** 3.3 x 6.0 x 7.6cm complex saccular aneurysm of the distal aortic arch and proximal descending aorta w coarctation from zone 3 to zone 4
- **TTE:** Normal EF (60-65%), structurally normal AV
- **Cath:** Severe narrowing of L main PA (aneurysmal compression)

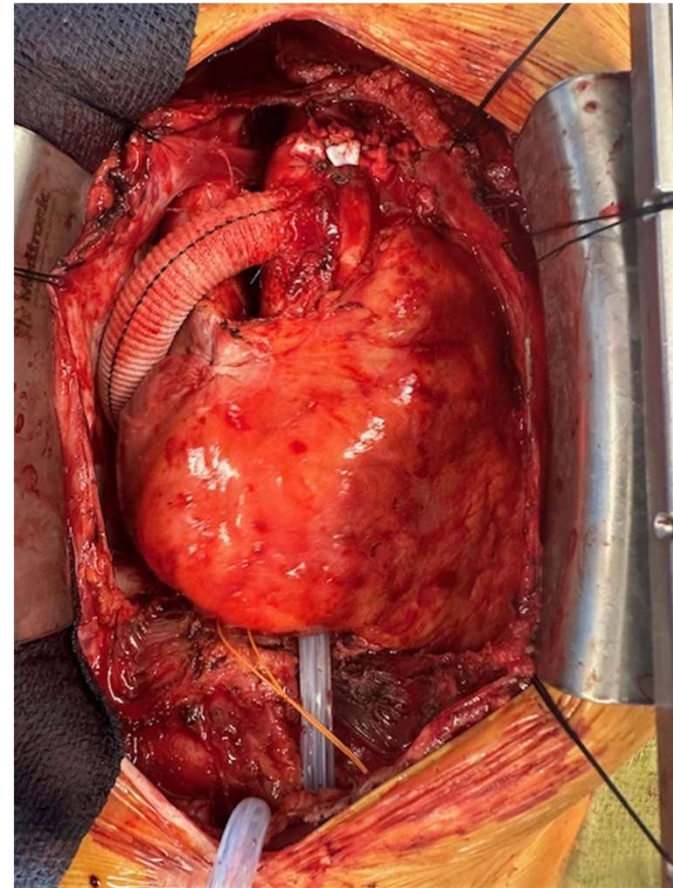
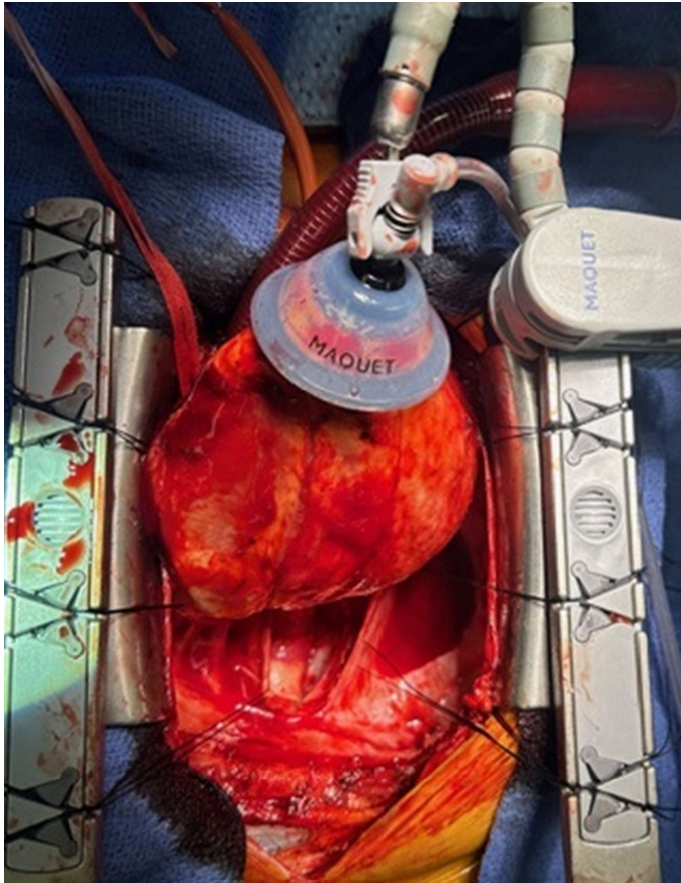
CTA



Operative Approach

- CBP: Distal ascending and R aortic cannulation, cooled to 25 deg
- Distal descending thoracic aorta exposed by dissecting heart free of dense adhesions from the posterior pericardium
- 14mm Dacron graft anastomosed to this site, passed through the inferior pericardial space, posterior to the vena cave (oblique sinus) to R side of heart
- Proximal anastomosis of graft to mid descending aorta completed

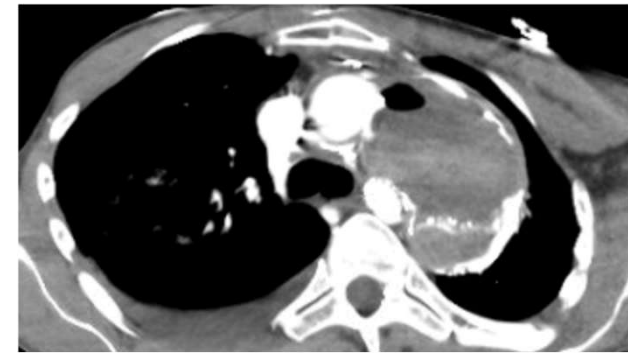
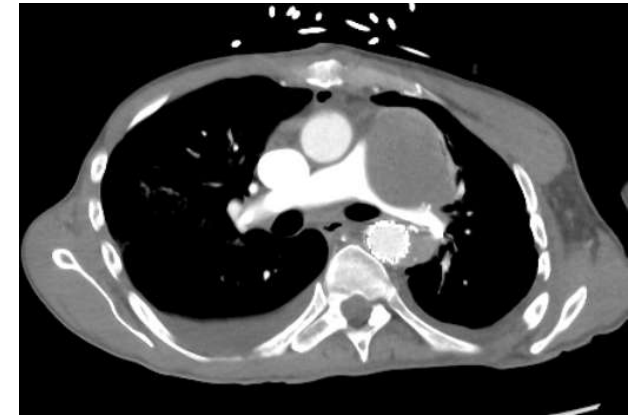
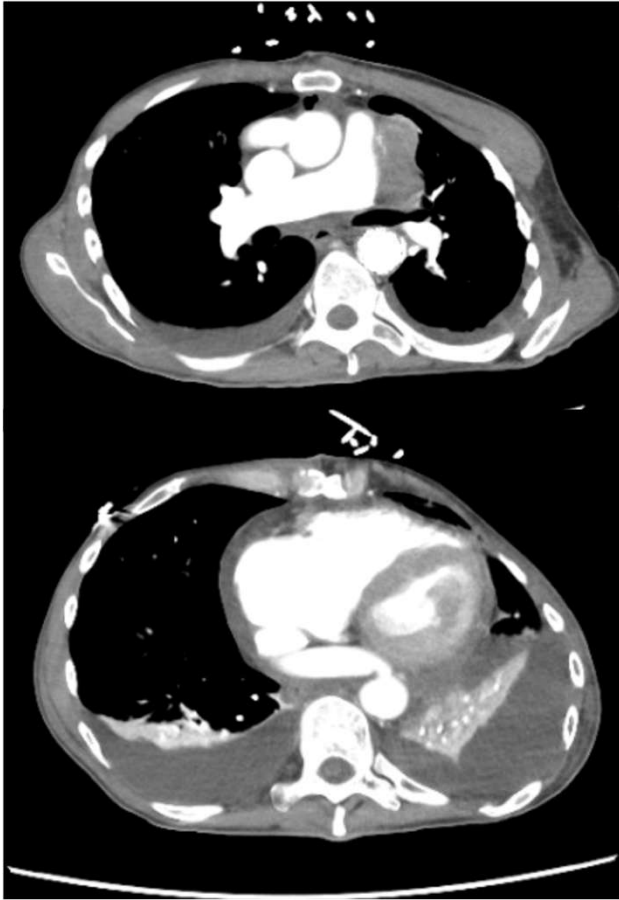
Operative Approach



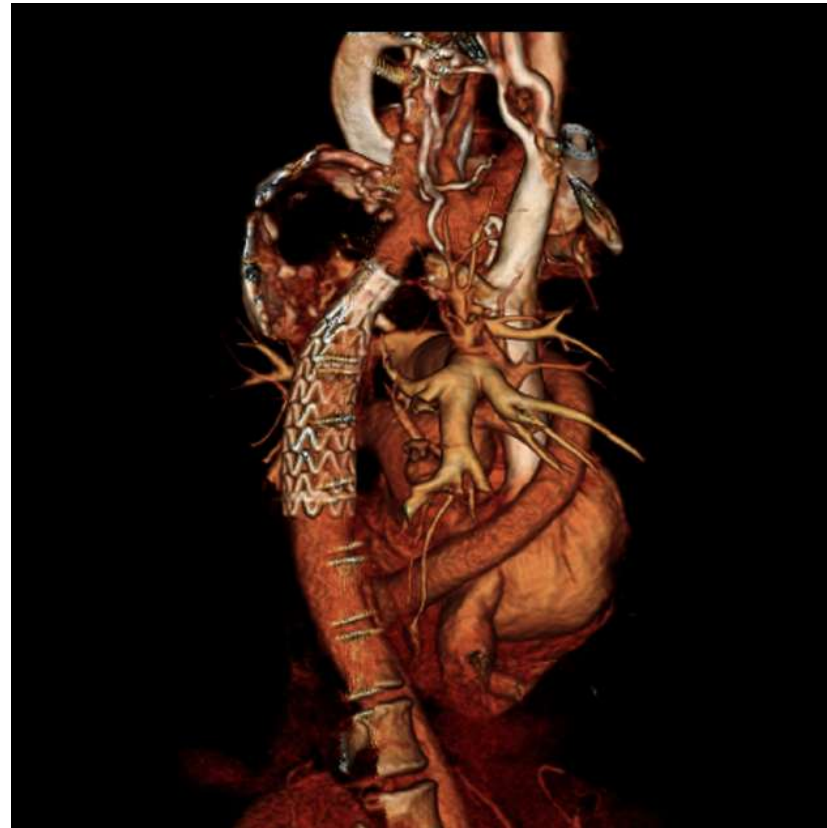
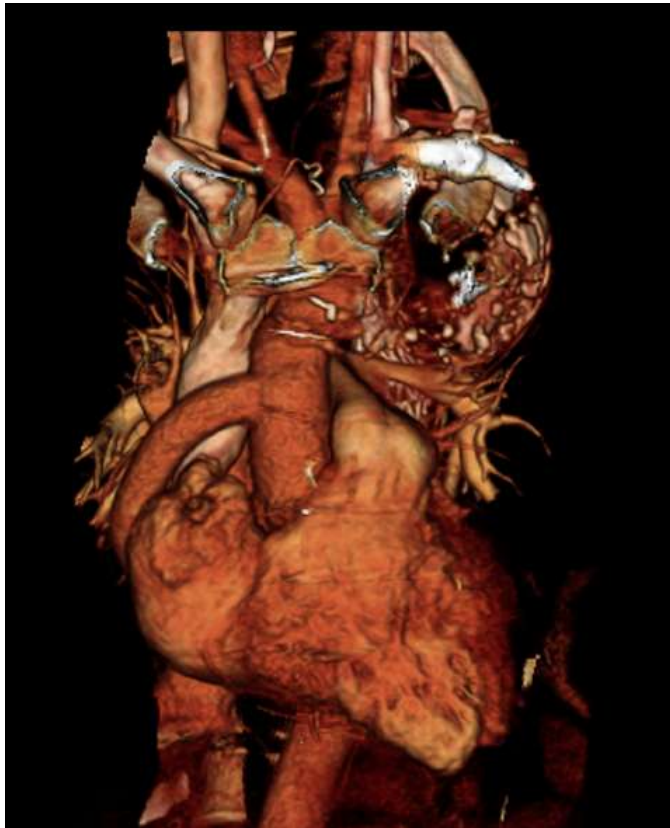
Operative Approach

- At 25 deg, aorta cross clamped, del Nido cardioplegia administered, and deep hypothermic circ arrest initiated
- Selective ACP: L common carotid and innominate cannulation
- Transverse aortotomy performed, revealing prior vascular graft had completely disrupted at proximal suture line
- 26 x 21 x 100mm endovascular graft deployed in antegrade fashion via the native coarcted aorta
- Proximal orifice of pseudoaneurysm closed w Dacron patch
- CBP: 220min; Circ Arrest: 79min; Cross Clamp: 85min

Post-Operative Imaging



Post-Operative Imaging



Post-Operative Course

- Complicated by acute seizure activity, binocular vision loss, and pericarditis
- Managed w anti-epileptics and visual acuity returned to baseline prior to DC
- Pericarditis and effusion were managed medically and resolved on follow-up imaging
- Discharged to home