Aortic diseases – A Case presentation

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- A 37-year-old healthy female was found to have a diastolic murmur during an annual physical exam. She denied any cardiac symptoms.
- A transthoracic echocardiogram was obtained which showed severe aortic regurgitation as well as aneurysm of the non coronary sinus and left coronary sinus of Valsalva.







Work up

- Referred to UNMC for further evaluation given the complex anatomy.
- Seen in the aortopathy clinic with Dr. Yetman and Dr. Siddique.
- Underwent a CT angiogram which confirmed the aneurysm and showed thickening of the aortic wall raising concern for aortitis.
- Infectious, rheumatologic work up for aortitis (including a normal serum Ig-G4 level) and genetic evaluation for heritable aortopathy were negative.







Clinical course

- Underwent Ross procedure with a 26 mm pulmonary homograft placement, aortic annular stabilization and replacement of proximal ascending aorta with 28 mm tube graft with Dr. Kim Duncan and Dr. Siddique.
- Histopathology showed plasma lymphocytic infiltration and 53 lg-G4 positive cells per high power field in the adventitia.
- The patient was seen by rheumatology and started on a prednisone taper.
- At 1 year follow up, echo showed normal function of the valve and CTA showed stable neoaortic root.

Take home points

- Multidisciplinary Aortic Team care leads to better outcomes for patients with aortic disease, especially at programs with higher volumes, experienced practitioners, and extensive management capabilities.
- Shared decision-making involving the patient and a multidisciplinary team is highly encouraged to determine the optimal medical, endovascular, and open surgical therapies.

2022 ACC/AHA Guideline for the Diagnosis and Management of Aortic Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines. Circulation. 2022 Dec 13;146(24):e334-e482. doi: 10.1161/CIR.00000000001106. Epub 2022 Nov 2. PMID: 36322642; PMCID: PMC9876736.

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