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☆ **Complex Clinical Cases**

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Poster Contributions
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Session Title: Complex Clinical Cases: FIT Flatboard Poster Selections -- Interventional and Structural
Abstract Category: FIT: Interventional and Structural

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Background: Ascending aortic pseudoaneurysm (AAP) is an unusual but potentially life-threatening complication of cardiothoracic surgery. Here, we report a rare case of a large AAP after lung transplant and CoreValve transcatheter aortic valve replacement (TAVR).

Case: A 64-year-old male with a history of moderate aortic stenosis and severe aortic regurgitation status post TAVR two years prior, and chronic obstructive pulmonary disease secondary to alpha-1 antitrypsin deficiency status post bilateral lung transplant one year prior, was admitted for an AAP detected by CT scan. A chest CT angiogram showed a large AAP extending to the retrosternal region with a wide mouth in continuity with the ascending aortic lumen. The AAP contained sternal wires and was in close proximity to the distal portion of the TAVR prosthesis.

Decision-making: AAPs are prone to rupture and carry high morbidity and mortality rates. In this case, it was speculated that the TAVR prosthesis caused frictional effects on the aortic wall against the sternal wires and the posterior plate of the sternum, which led to the formation of the AAP. Emergent AAP repair was performed. The TAVR prosthesis was replaced with a surgical aortic valve bioprosthesis. The patient was discharged home one week after surgery.

Conclusion: Although the incidence of AAP after thoracic surgery is rare, the presence of a TAVR prosthesis and genetic predisposition of aneurysm formation due to alpha-1 antitrypsin deficiency likely increased the chance of AAP formation.

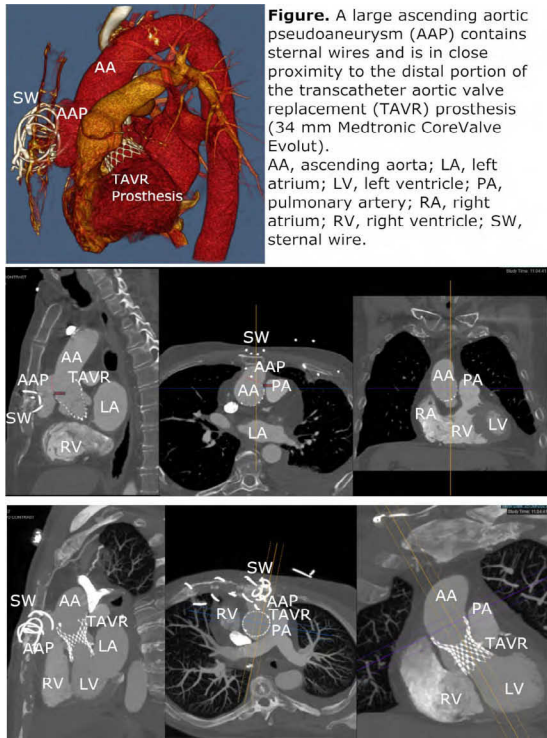


Figure. A large ascending aortic pseudoaneurysm (AAP) contains sternal wires and is in close proximity to the distal portion of the transcatheter aortic valve replacement (TAVR) prosthesis (34 mm Medtronic CoreValve Evolut). AA, ascending aorta; LA, left atrium; LV, left ventricle; PA, pulmonary artery; RA, right atrium; RV, right ventricle; SW, sternal wire.