INTRODUCTION: Large thoracic aortic pseudoaneurysms are a life-threatening complication that typically occur as a complication of aortic prior surgery in less than 0.5% of cardiac surgical cases. Thoracic aortic pseudoaneurysms are typically asymptomatic and found incidentally. The gold standard for treatment remains surgical, but novel repairs have been suggested. We will describe a case of a large thoracic ascending aortic pseudoaneurysm treated by amplatzer plug.

CASE PRESENTATION: The patient is a 70-year-old man with a past medical history of thoracic aortic aneurysm status post aortic root replacement with aortic valve replacement, reduced ejection heart failure, persistent atrial fibrillation who presented to the hospital for a heart failure exacerbation. Patient had a transthoracic echocardiogram that was concerned for a large pseudoaneurysm with aortic collapse. CT angiography of the chest was obtained that was concerning for a 7.3 cm thoracic aortic pseudoaneurysm. Transesophageal echocardiogram confirms a large pseudoaneurysm with a discrete neck for possible amplatzer plug closure. Left heart catheterization showed moderate coronary artery disease and a large pseudoaneurysm. Patient was evaluated by cardiothoracic surgery but was deemed too high risk and transferred to outside hospital for successful amplatzer plug closure of pseudoaneurysm.

DISCUSSION: A thoracic aortic pseudoaneurysm is a false aneurysm caused by the transmural disruption of the aortic sometimes caused by infection or trauma, but most often caused by previous surgery. Outside of case reports, there is little evidence regarding aortic pseudoaneurysm including mortality rates. The gold standard for treatment remains aortic graft replacement, but many patients are poor surgical candidates. Novel treatments have been proposed including amplatzer plugs.

CONCLUSIONS: Thoracic aortic pseudoaneurysm are a rare complication of cardiac surgery that requires further study to determine the ideal treatment in non-surgical candidates.


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DOI: https://doi.org/10.1016/j.chest.2021.07.107
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