Title: A rare huge ascending aortic aneurysm

Category: Valvular Heart Disease

Abstract

Aortic aneurysm is the second most common in the spectrum of aortic disease after atherosclerosis. Thoracic aortic aneurysms are usually silent until acute and often lethal complications occur. The etiology of ascending aortic aneurysm is probably multifactorial. Risk factors include smoking, chronic obstructive pulmonary disease, hypertension, atherosclerosis, male gender, older age, bicuspid aortic valve and family history whereas 15% of first-degree relatives of patients with aortic aneurysms have an aneurysm.

Case report: Our patient is 87 years old man with no significant previous medical history apart from mild cognitive impairment who presented to the hospital with fatigue, shortness of breath and cough. The patient had no orthopnea or paroxysmal nocturnal dyspnea. An ejection systolic murmur could be heard on auscultation of the heart and there were no significant findings on chest examination. His chest x-ray did not show any significant findings. The patient condition was initially diagnosed as chest infection and stabilized with antibiotics and bronchodilator.

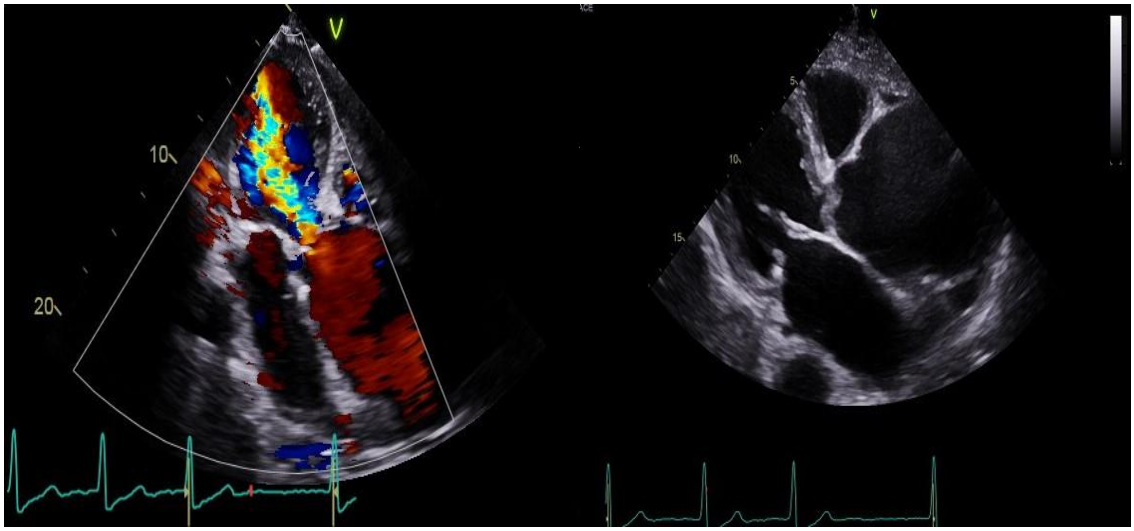
He represented with persistent shortness of breath and was found to have type II respiratory failure on arterial blood gases and he was suspected to have myasthenia gravis and this was proved with the detection of acetyl choline receptor antibodies. Echocardiography was done for possible concomitant left ventricular failure or severe aortic stenosis and a CT was requested to rule out lung neoplasms and thymoma.

He was accidentally discovered to have a huge fusiform ascending aortic aneurysm that was measured at 9cm by echocardiography and 9.5 cm in its maximum diameter by the CT scan and excluded aortic dissection. His Echocardiography showed preserved left ventricular dimensions and systolic function, severe aortic regurgitation that was believed to be secondary to annular dilatation.

The patient was offered urgent surgery, however after discussion with the patient and family, he refused even after explaining the high risk of fatal complications

Conclusion: Our case study represents one of the largest reported ascending aortic aneurysm and concomitant Myasthenia Gravis. The natural history of thoracic aortic aneurysm is progressive expansion and eventual rupture or fistula formation. Progressive dilation of the ascending aneurysm may cause dilation of the aortic annulus with resultant aortic regurgitation as in our patient. The cause of dyspnea in our patient is probably a combination of Myasthenia, aortic regurgitation and mechanical airway obstruction.

Many reports suggest that an autoimmune disease process plays an important role in the development of abdominal aortic aneurysm based on the association with other autoimmune diseases like rheumatoid arthritis and systemic lupus. The concomitant presentation of Myasthenia gravis and TAA in our case is rare and might suggest autoimmune pathology.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