

Ascending aorta aneurysm with chronic type a dissection

Abstract

Abdominal aortic aneurysm is the most common type of aortic aneurysms. Thoracic aortic aneurysm is the most insidious until growing up to developing clinical dissection. Early diagnosis and treatment prevent against to deadly consequences. In this case it was wanted to emphasize the importance of multimodality imaging.

Keywords: aortic aneurysm, aortic dissection, multimodality imaging

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Emine Altunta¹, Songül Usal², Yasemen Durak³, Ertan Sa?ba?⁴, Levent Onat⁵, Nurcan Arat⁶

¹Cardiology, Zonguldak Atak

²Cardiology, Tokat, Turhal State Hospital, Turkey

³Cardiovascular Surgery, ?anl?urfa, Mehmet Akif Inan Research and Training Hospital, Turkey

⁴Cardiovascular Surgery, Florence Nightingale Hospital, Turkey

⁵Radiology, Florence Nightingale Hospital, Turkey

⁶Cardiology, Florence Nightingale Hospital, Turkey

Correspondence: Emine Altunta?, Hospital Cardiology Department, Zonguldak State Zonguldak, Turkey, Tel +90 0534656 58 82, Email emine_altuntas@hotmail.com

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Introduction

Aortic aneurysm is a pathology that occurs with a 1.5 fold dilatation of aortic normal diameter. Aortic dissection results in that high arterial pressure decomposes to aortic layers. The main reason is the sudden pressure increase in the unit when the increased 'shear' force along the aortic lumen leads to aortic luminal cardiac systole. Aortic aneurysm can be confronted with a wide spectrum of fatal or incidental clinical consequences. Many patients are asymptomatic. Most common etiological risk factors of aortic aneurysm are uncontrolled hypertension and senility. Other etiological risk factors are smoking, dyslipidemia, Marfan syndrome, other collagen tissue diseases, infections, inflammations, trauma, cystic medial necrosis. We represent here that a case diagnosed with giant ascending aortic aneurysm when she was examined with dyspnea.

Case presentation

A 62-year-old female patient with known hypertension, obesity history was referred to the cardiology polyclinic by inhalation and diuretic therapy after examination of her chest diseases polyclinic with shortness of breath and rapid fatigue. Blood pressure was measured 130/80mmHg in both of arm, pulse was 114/m and irregular. Peripheral pulses were fuller, faster, arrhythmic on all extremity. Heart sounds were heard as a 3/6 diastolic murmur in aortic focus and 2/6 systolic murmur in mitral focus. Respiratory sounds were normal and equal in both of hemithorax. Hyperlipidemia, impaired fasting glucose, normal renal function were detected in laboratory tests. In echocardiographic examination was revealed ejection fraction %32, mild mitral and tricuspid regurgitation, moderate aortic regurgitation and degeneration at both of valves, aneurismatic dilatation in ascending aorta (9.1cm) and aortic arch (5.4cm) were revealed (Figure 1). There was seen dissection flaps in proximal ascending aorta and thrombus was observed in false lumen. Afterwards, that patient was scanned by thoracoabdominal computerized tomography angiography. Diameter of aneurysm was measured 9.8cm and it was extending to the arch aorta (Figure 2 & 3). Dissection and plaque were not seen on carotid

doppler ultrasonography. Coronary angiography was not applied to patient before surgery operation because of high risk. Supracoronary Graft Interposition and Hemiarachus Replacement was applied to patient after preparations were completed (Figure 4 & 5). Prosthetic aortic valve replacement was not performed to patient because of there was no pathology other than degeneration. Control echocardiography was performed after intensive care process. Ejection fraction was measured %55 and seen mild mitral-aortic-tricuspid regurgitation. The patient was discharged after 6 days without any problems in the postoperative period.

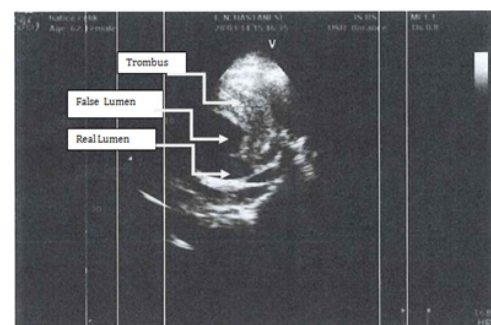


Figure 1 Echocardiographic image of ascending aorta aneurysm with chronic type a dissection.

Discussion

Even though abdominal aortic aneurysm is seen the most frequently, thoracic aortic aneurysm have different importance because of it is quite as development of rupture and dissection clinic. Early diagnosis and treatment prevent from mortality. In the recently published European Cardiology Society Guide to Aortic Diseases (2014) surgical borders are as follows; 45mm in patients with Marfan's syndrome, 50mm in patients with bicuspid aortic valve and 55mm in the other patient group.⁴ In our patient, the diameter of ascending aorta was measured as 98mm in the widest place. Thoracic CT angiography provides us with the most accurate results in terms

of assessing how far and where the aneurysm has been measured and how far it has been measured, even though echocardiography is required routine evaluation in outpatient. We also want to emphasize the importance of multimodality imaging in this case.

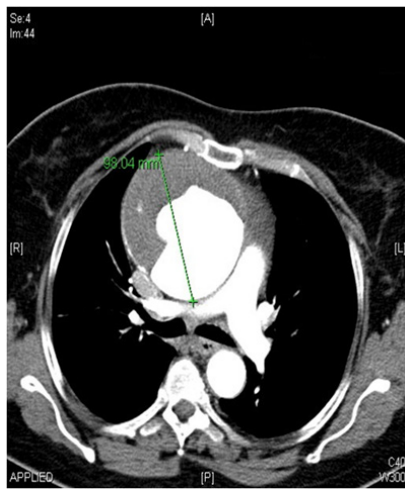


Figure 2 Computerized Tomography Angiography Image of Ascending Aort Aneurysm with chronic dissection.

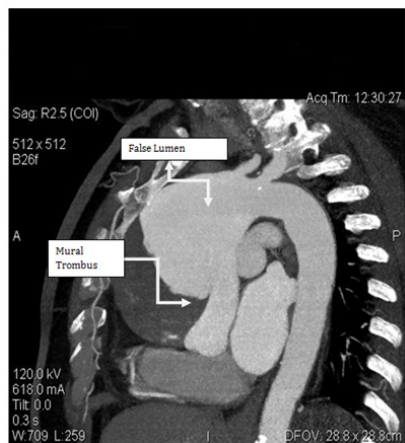


Figure 3 Computerized Tomography Angiography Image of Ascending Aort Aneurysm with chronic dissection.

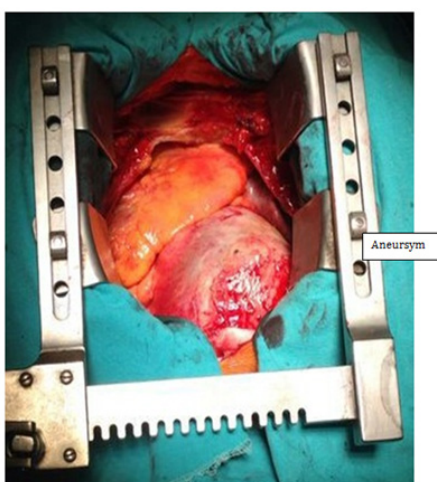


Figure 4 Operation Image of Giant Ascending Aorta Aneurysm.

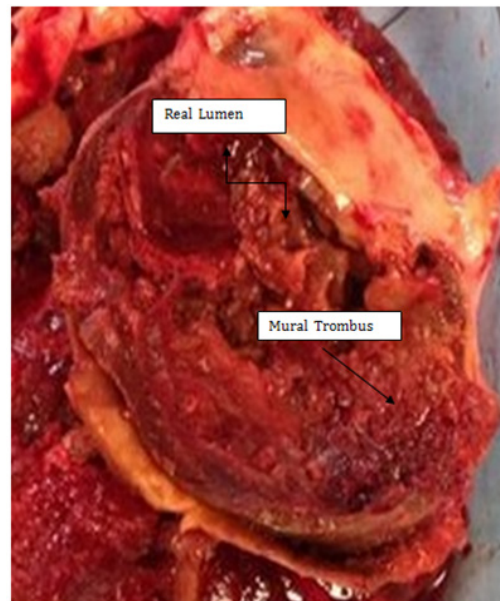


Figure 5 Piece Image of Giant Ascending Aorta Aneurysm.

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Conflicts of interest

Author declares there are no conflicts of interest.

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