

## Cardiology Images

## A YOUNG GIRL WITH LARGE AORTIC ANEURYSM

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A thirteen years old un-married girl presented with gradually progressive dyspnea of functional class II-III and history of palpitation. On examination there were visible pulsations in the precordium and neck. Her pulse rate was 96/min, regular and it was collapsing in character, blood pressure was 115/60 mmHg, BMI was 17 Kg/m<sup>2</sup>. On auscultation normal intensity of first and second heart sound with early diastolic murmur best heard in sitting position and breath held in expiration. Her transthoracic echo (TTE) showed markedly dilated aortic root and severe AR. She was advised 64 slice MDCT for sizing and extent of aortic aneurysm

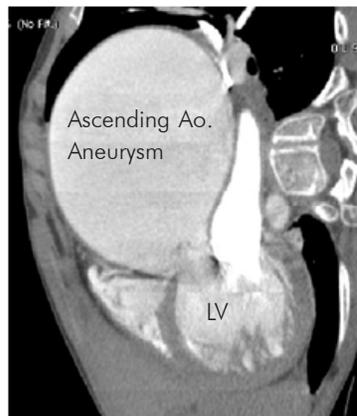
Below are images of this patient. The image A is chest X ray of this Patient showing marked enlarge-

ment of mediastinum and cardiac shadow. The differential diagnosis of this X ray could be aortic aneurysm, aortic dissection, mediastinal masses e.g., lymphoma. The image B is the contrast enhanced 64 slice MDCT image showing dilated LV cavity, non coapting aortic valve, and markedly dilated aortic root and ascending aorta. There was no dissection flap in the aortic root and ascending aorta ruling out the type A aortic dissection. The maximum dimension of the this aneurysm was 123mm x130 mm in diameter and the length of the aneurysm was 180 mm. The image C shows volume rendering (VR) image of ascending aortic aneurysm occupying the whole of mediastinum.

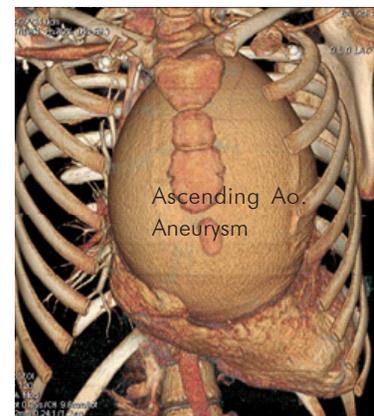
(J Cardiovasc Dis 2014;12(1):25)



A



B



C

Such large aneurysm are treated with surgery. Indications for surgical treatment of thoracic aortic aneurysms (TAAs) are based on size, growth rate and symptoms. Because the risk of rupture is proportional to the diameter of the aneurysm, aneurysmal size is the criterion for elective surgical repair. Elective repair is recommended of ascending aneurysms at 5.5 cm and descending aneurysms at 6.5 cm for patients without any familial disorders such as Marfan syndrome. The incidence of complications (rupture and dissection) expo-

entially increases when the size of the ascending aorta reaches 4.25 cm/m<sup>2</sup>. Patients with Marfan syndrome or familial aneurysms should undergo earlier repair, when the ascending aorta grows to 5.0 cm and for the descending aorta 6.0 cm<sup>2</sup>.

### REFERENCES

1. Davies RR, Gallo A, Coady MA, Tellides G, Botta DM, Burke B et al. Novel measurement of relative aortic size predicts rupture of thoracic aortic aneurysms. *Ann Thorac Surg.* 2006 Jan. 81(1):169-77.
2. Elefteriades JA. Natural history of thoracic aortic aneurysms: indications for surgery, and surgical versus nonsurgical risks. *Ann Thorac Surg.* 2002 Nov. 74(5):S1877-80.

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