A Giant Aortic Root Aneurysm Determined by Chance: Original Image

Tesadüfen Belirlenen Dev Aort Kökü Anevrizması

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Geliş Tarihi/*Received:* 27.11.2013
Kabul Tarihi/*Accepted:* 07.01.2014

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Key Words:
Aortic aneurysm; child

Anahtar Kelimeler:
Aort anevrizması; çocuk

Turkiye Klinikleri J Cardiovasc Sci 2014;26(2):103-4

A 14-year-old male patient was brought for screening because his mother had an aortic aneurysm. He had no complaint. Cardiovascular examination detected a loud murmur that was best heard in the aortic region. However, other systemic examination was insignificant. Echocardiogram showed severe aortic regurgitation with massively dilated aortic root and ascending aorta with a diameter of 7.8 cm. Aortic valve was tricuspid. Aortic regurgitation was secondary to dilated aortic root. However, left ventricle was dilated with left ventricular end systolic diameter of 42 mm and end diastolic diameter of 63 mm. The left ventricular ejection fraction was preserved at 62%. Initial complete blood count, biochemistry and rheumatologic tests were normal. On further evaluation, cardiac magnetic resonance imaging with contrast demonstrated significant aneurysmal dilatation of the aorta. The ascending aorta measured 7.4 cm (Figure 1). The patient was screened for capable of aortic dilatation diseases (Marfan syndrome and Loeys-Dietz syndrome, etc.) but we could not detect any disease. He was urgently taken to the operating room for the repair of the aneurysm. Intra-operatively, a large aneurysm was found (Figure 2). The ascending aorta was repaired with a tube graft. In the postoperative period, aortic valve prosthesis sound was heard but other physical examination findings were normal. The postoperative echocardio-

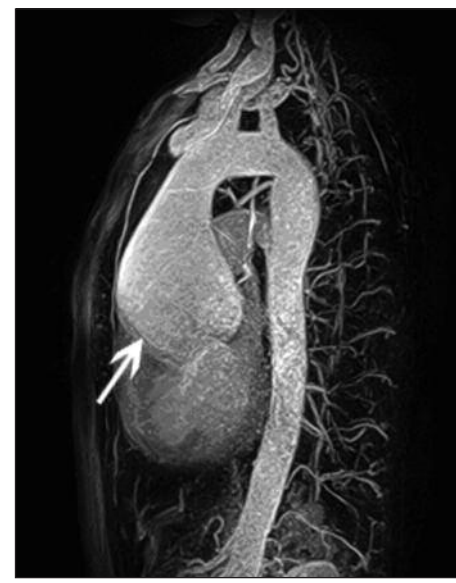

FIGURE 1: Cardiac MRI with contrast showing significant aneurysmal dilatation of the ascending aorta (arrow).

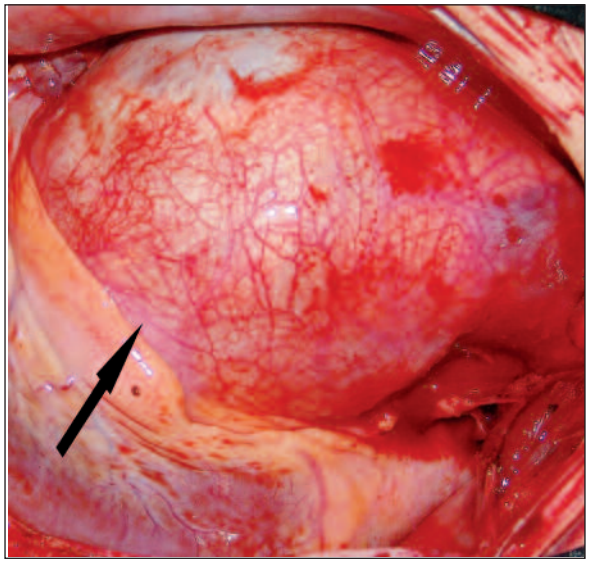

FIGURE 2: Intraoperative picture of the aneurysm (arrow).
(See color figure at
http://www.turkiyeklinikleri.com/journal/cardiovascular-sciences/1306-7656/)

graphic examination showed that trace aortic valve regurgitation and mild left ventricular dilatation. The recovery was uneventful and he was discharged from hospital on postoperative day 15. The precise mechanisms of aortic aneurysms (AA) formation are not yet completely understood; however, genetics play a role, with first-degree relatives of patients with AA having a 15% chance of developing an aneurysm.[1] Magnetic resonance imaging and echocardiogram were the most common investigations to diagnose the aneurysm in most of the cases reported. Aortic aneurysms may complicate into a life-threatening rupture with haemorrhage, dissection causing ischaemia or occlusion with resultant complications.[2] The larger initial aneurysm diameter is a significant and independent risk factor for AA rupture: the 12-month rupture risk is about 30–33% for AA > 7.0 cm in size. The annual rupture risk for AA >8 cm is 30% to 50%. However, patients with giant AA require urgent treatment. The timely operation on a patient with a known dilatation of the ascending aorta is advised.[3] The screening for high risk patients helps in picking up an early diagnosis. Therefore, physicians should ensure that they take a very detailed patient family history.

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