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■ Case Report

Does a four-days leg pain require a surgery under cardiopulmonary bypass in a 28-years-old person? Acute type A aortic dissection in a young patient

28 yaşında bir bireyde dört gündür devam eden bacak ağrısı kardiyopulmoner bypass altında bir cerrahi gerektirir mi? Genç bir hastada akut tip A aort diseksiyonu

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Abstract

Type A dissections of the ascending aorta is usually seen in elderly hypertensive patients. This diagnosis may not come to minds in young people with atypical symptoms. We aim to emphasize that this pathology should be kept in mind as a differential diagnosis also in young patients in this case report of an 28-year-old male patient who have right lower extremity pain for last 4 days and diagnosed with acute type A dissection.

Keywords: acute type A dissection; leg pain; young patient

Öz

Tip A aort diseksiyonu genelde yaşlı ve hipertansif hastalarda sıkça görülen bir patolojidir. Atipik semptomları olan genç hastalarda bu tanı akıllara gelmeyebilir. Biz 4 gündür olan bacak ağrısı şikayeti ile hastaneye başvuran ve tip A aort diseksiyonu tanısı olan 28 yaşında bir hastanın olgu sunumunu yaparak bu patolojinin genç hastalarda da ayırıcı tanıda akıllarda tutulması gerektiğini vurgulamak istedik.

Anahtar kelimeler: akut tip A diseksiyon; bacak ağrısı; genç hasta

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Introduction

Type A dissections of the ascending aorta is usually seen in elderly hypertensive patients. We present the case of an 28-year-old male patient who have right lower extremity pain for last 4 days. When he was referred to the cardiovascular surgery department, a doppler ultrasonography was planned and showed nothing pathological. A dissection flap was seen during transthoracic echocardiographt evaluation. Then a Computed Tomography was planned an revealed a Type A Dissection. Patient was undergo an urgent surgery. Acute type A dissections are uncommon in young patients. We report one rare case of A acute type A dissection in twenty-eight-year-old male in Turkey.

Case Report

A 28-year-old male with a four days history of right lower extremity pain was admitted to our hospital. He had normal body mass index with 59 kg of body weight and 165cm of height. His past medical history was unremarkable. There was no trauma history or genetic disorder. In his physical examinations on admission, heart rate was 110/min, initial blood pressures were 110/90mmHg at both arms, respiration rate was 25/min, body temperature was 36.8 °C. Laboratory test were all normal and right lower extremity pulses were palpable. A diastolic murmur was heard on right parasternal area. During transthoracic echocardiographic evaluation cardiologist suspected dissection flap on ascending aorta. In the light of this finding a computed tomography was planned. The diagnosis of acute type A dissection was established with the help of CT imaging by torn intimal flap from ascending aorta to iliac bifurcation. Celiac, superior mesenteric and left renal arteries were originated from false lumen. He has also a dilated ascending aorta which was measured 5,3cm (Figure 1). An urgent surgery was planned. Under cardiopulmonary bypass supracoronary graft interposition was performed successfully. After surgery patient was followed-up during 2 days in intensive care and 4 days in service room then discharged.

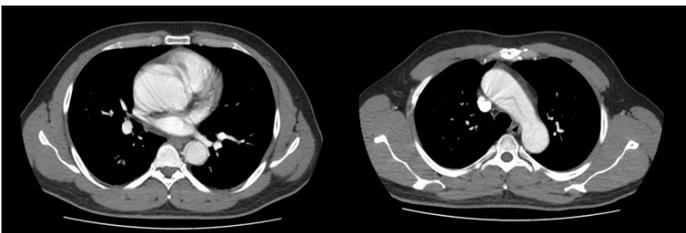


Figure 1. Computed Tomography Images. Intimal flap on ascending aorta was seen.

Discussion

Rarely occurring in the young population, aortic dissection is a condition with many predisposing factors. Age 70 years

or more was an independent predictor for mortality and the in-hospital mortality rate was significantly lower after surgical management compared with medical management until the age of 80 years. For patients aged 80 to 90 years, the in-hospital mortality appeared to be lower after surgical management[1]. Although aortic dissection is rare in patients younger than 40 years of age, young patients with systemic hypertension are at increased risk for this serious and often fatal condition[2]. In young population there were some identifiable risk factors for aortic dissection, including congenital cardiovascular disease, advanced atherosclerosis, vasculitis, trauma, pregnancy, or family history. Westonver et al suggested that young adults with a diagnosis of amphetamine abuse/dependence would be at higher risk for aortic dissection[3]. In their studies with 951 patients, Januzzi and his colleagues showed that compared with patients older than 40 year-old, younger patients were less likely to have a prior history of hypertension however, they were more likely to have Marfan syndrome, bicuspid aortic valve, and prior aortic surgery[4]. Hsin-Yi Wei reported a young patient with systemic lupus erythematosus complicated by aortic dissection[5]. With a case report, Tsai and Sherman postulated that the thrombocytopenia led to spontaneous hemorrhage within the vasa vasorum of the aorta and the subsequent development of aortic dissection[6]. None of the above risk factors was exist in our patient. Acute aortic dissection is a life-threatening disease that is often a diagnostic challenge in emergency departments. Patients with acute aortic dissection often manifest itself with acute-onset severe chest or back pain. Our patient have only a right lower extremity pain and his diagnose was established incidentally during a trans-thoracic echocardiography which planned to clarify the murmur on aortic valve. In the treatment of acute type A aortic dissection, surgery is the most recognized option and associates with lower mortality rates, especially in young patients. For this reason we also decided to perform surgery. Limited number of studies are available in the literature about acute type A aortic dissection in young patients as in our case.

Conclusion

Dissection of the thoracic aorta remains a lethal condition involving the aorta. Moreover, survival after the onset of symptoms is time-dependent and therefore, accurate diagnosis is crucial. Numerous studies have emphasized risk factors and characteristics of acute aortic dissections. However, acute aortic dissection is a rare condition for young population and it has been suggested that they may be more likely to have an atypical presentation. In these population, survival after surgery is better than elderly patients. We report one rare case

of acute type a dissection with an atypical presentation in an 28-year-old child. We believe in that physicians working particularly in the emergency room, should be aware of predisposing factors of acute aortic dissection and its atypical presentations.

Declaration of conflict of interest

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*Informed consent was obtained from patient

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