

A Rare Cause of Platypnea: Left Atrial Myxoma**Faruk Ertas, MD*, Halit Acet MD*, Ferhat Ozyurtlu MD**, Mehmet Zihni Bilik MD****** Dicle University Medicine Faculty, Department of Cardiology, Diyarbakır, Turkey****** Diyarbakır Training and Research Hospital, Department of Cardiology, Diyarbakır, Turkey****Corresponding author: Faruk ERTAS, MD****e-mail: farukertas@gmail.com****Adres: Dicle university, faculty of medicine, Department of Cardiology, Diyarbakır, Turkey****Telephone: +90412 2488523****GSM Phone: +90 5533941031****Abstract**

Platypnea- Orthodeoxia syndrome approximately 150 cases have been reported. The patients are usually elderly and majority of them have a right-left intracardiac shunt. It is associated with Lung and liver diseases, drug intoxications, and pericardial diseases. According to our literature, there is only one case with platypnea diagnosed as myxoma which has been resolved after mass excision. We presented an atrial myxoma case causing platypnea which is rarely comes to mind as a differential diagnosis in patients with positional presyncope and dyspnea. 45 year-old woman, was admitted to the department of neurology because of presyncope ongoing 3-4 months, Neurological examinations was normally so she was referred to cardiology. After detailed physical examination, transthoracic echocardiography (TTE) was performed. TTE was showed a giant mobile left atrial mass (4.55x3.19 cm) prolapsing into the left ventricular cavity through the

mitral valve and causing severe mitral stenosis. Mass has been excised by surgery and histological diagnosis was myxoma.

Key Words: Presyncope, Left atrial myxoma, Platypnea, Echocardiography

Introduction:

Platypnea is defined as dyspnea induced by an upright position and relieved by recumbency. Orthodeoxia is defined as increasing arterial deoxygenation by an upright position and improved by recumbency (1,2). Platypnea-orthodeoxia (P-O) syndrome is a rare clinical disorder associated with conditions such as pneumonectomy, pulmonary emphysema and liver cirrhosis. Recently, interatrial right-to-left shunting through an atrial septal defect (ASD) or a patent foramen ovale (PFO) has been reported to be a common cause of this syndrome (3–6). We presented a case of P-O syndrome caused by left atrial myxoma.

Case

45 year-old woman, who had an attack of presyncope ongoing 3-4 months, was admitted to the department of neurology. Neurological examination, vertebral-carotid Doppler ultrasonography and cranial computed tomography showed no abnormality. The patient was referred to our clinic because of positional progressive dyspnea. Medical history was normal. On physical examination arterial blood pressure was 110/70 mmHg and heart rate was 78 beats/minute with regular rhythm. On the cardiovascular system exam, the pathognomonic tumor plop were heard by auscultation at seated position and it was not heard at supin position. Electrocardiography,

telecardiography and laboratory tests were normal. Transthoracic echocardiography was showed a giant mobile left atrial mass originated from interatrial septum and prolapsing into the left ventricular cavity through the mitral valve and causing severe mitral stenosis at seated position. (Fig. 1) The mass was not causing obstruction on supine position (Fig. 2A) Almost the half of the left atrial cavity was occupied by the mass. The left atrial mass were 4.55x3.19 cm (Fig. 2B). Transesophageal echocardiography was performed at supin position and demonstrated a very mobile left atrial mass which was cauliflower shape and originated from interatrial septum. The patient underwent surgery. Benign myxoma was revealed by macroscopic and pathologic-microscopic examination of the mass. The postoperative course was uneventful and the patient was discharged at the fourth postoperative day. The patient remained asymptomatic till postoperative third month without any echocardiographic signs of recurrence.

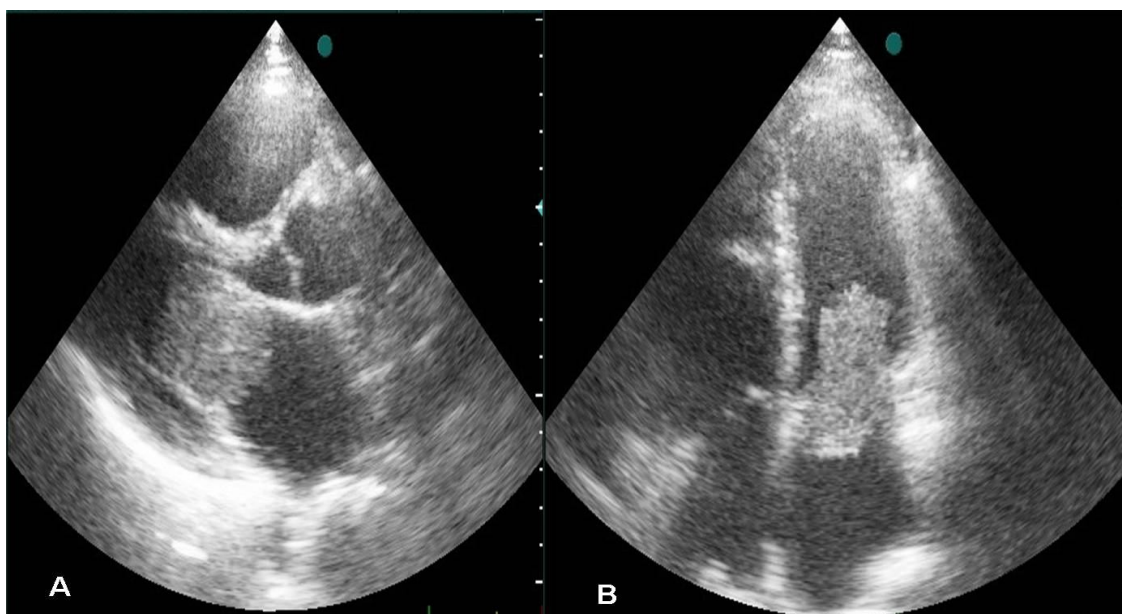


Figure 1: Transthoracic echocardiography was showed a giant mobile left atrial mass and prolapsing into the left ventricular cavity through the mitral valve and causing severe mitral stenosis at seated position

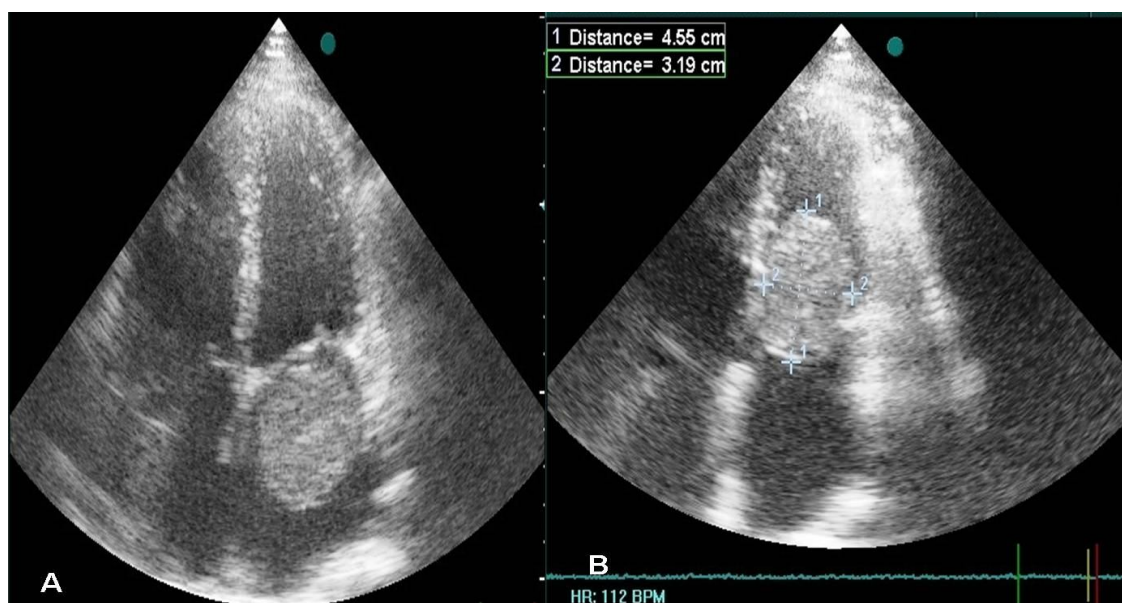


Figure 2A: Transthoracic echocardiography was showed the mass was not causing obstruction on supine position

Figure 2B: Transthoracic echocardiography was showed Almost the half of the left atrial cavity was occupied by the mass

Discussion:

Platypnea is a dyspnea occurs while sitting or standing up and relieves at recumbency. Platypnea is opposite to orthopnea that is a common symptom of heart disease. Increasing hypoxia that can be detected with arterial blood gas analysis or pulse oximetry, occurs when patient seated or upright positioned. This is defined as orthodeoxia syndrome. Platypnea and orthodeoxia are usually combined so it is called Platypne-orthodeoxia syndrome. This syndrome has been defined the first time in 1949 by Burchell et al.(7) Platypne-orthodeoxia syndrome is relatively rare, but

important symptom complex. The actual incidence is unclear, but it is more frequently seen in elderly patients.

To date, approximately 150 cases have been reported. This syndrome has been reported in patients with pulmonary arteriovenous shunting (8). In patients who do or do not have a pulmonary disease, have an intracardiac shunt through most commonly patent foramen ovale or fenestrated interatrial septal aneurysm or atrial septal defect (2). In constrictive pericarditis (9), in a patient with Ebstein's anomaly by propafenone overdose (10), in patients with advanced liver disease (8,11), in patients undergoing ileus (12) and in patients who have aneurysm or elongation in the ascending aorta (13-16). In PubMed database only one case is found like our case which is diagnosed as myxoma causing platypnea and after mass excision the complaint resolved. (17). According to our knowledge, our case is the second case in literature. Possible mechanism for the development of the platypnea by myxoma is; obstruction of mitral valve by the mass at upright position, increases pulmonary congestion and as a result reduces oxygen saturation.

Presyncope and dyspnea is a common symptom in patients admitted to polyclinics. Necessarily have to be considered in the differential diagnosis of atrial myxoma, and cardiac examination should be done carefully and in detail.

Conflict of interest: None

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