



Figure 4. a-c. Three-dimensional reconstruction of computed tomography coronary angiography. The right conal branch and the proximal left anterior descending coronary artery formed Vieussens' arterial ring (arrow) with aneurysmal dilatation

Video 3. Left anterior descending coronary artery and pulmonary artery fistula with aneurysm in right anterior oblique caudal view

Video 4. Right coronary artery and the conal branch of the right coronary artery in left anterior oblique view

Video 5. "Vieussens Arterial Ring," pulmonary artery fistula, and aneurysm of ring in left anterior oblique view

Video 6. "Vieussens Arterial Ring" in right anterior oblique view

Address for Correspondence: Dr. Yakup Alsancak,
Atatürk Eğitim ve Araştırma Hastanesi,
Kardiyoloji Kliniği, Bilkent, Ankara-Türkiye
Phone: +90 506 910 14 04

E-mail: dryakupalsancak@gmail.com

©Copyright 2015 by Turkish Society of Cardiology - Available online at www.anatoljcardiol.com
DOI:10.5152/akd.2015.6266

Bicuspid aortic valve and extremely elongated chordae tendineae protruding into the left ventricular outflow tract

A 32-year-old man was admitted to our hospital with atypical chest pain. Clinical examination revealed a grade 2 systolic murmur in the aortic area. His electrocardiogram and chest X-ray were normal. Transthoracic echocardiography showed a bicuspid aortic valve with mild aortic regurgitation and an extremely elongated anterior mitral chordae tendineae protruding into the left ventricular outflow tract (LVOT) during systole, which was not associated with mitral valve prolapse or significant mitral regurgitation (Fig. 1-3, Video 1, 2). Doppler examination demonstrated no significant pressure gradient across LVOT at rest and during Valsalva maneuver. Transesophageal echocardiography (TOE) was planned but not performed because the patient refused any further evaluation.

Elongated mitral chordae tendineae is a rare, benign echocardiographic finding. It requires to be distinguished from other pathological conditions, such as ruptured chordae tendineae, which is generally associated with mitral valve prolapse and significant mitral regurgitation. In this situation, transesophageal echocardiography may show anatomic and functional details.

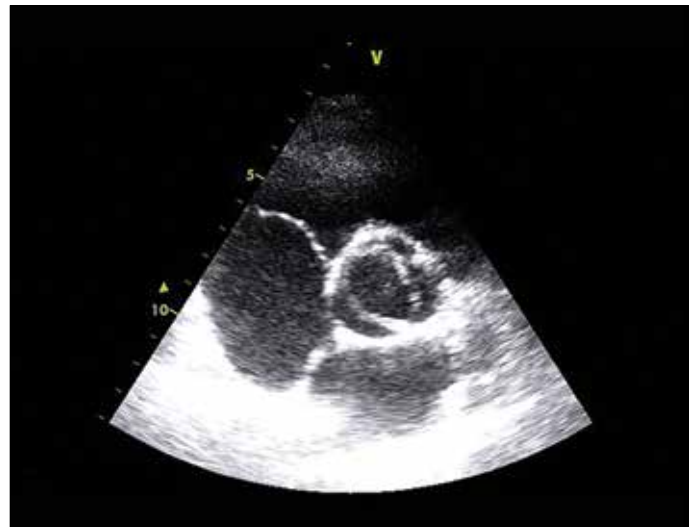


Figure 1. Parasternal short-axis view at aortic level showing a bicuspid aortic valve

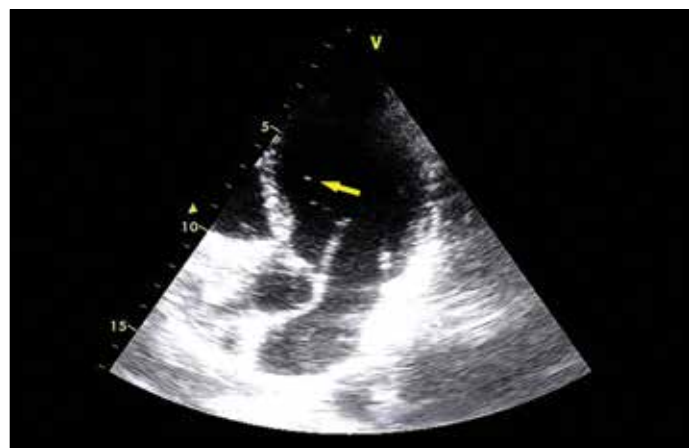


Figure 2. Transthoracic echocardiography (apical 5-chamber view) demonstrates an elongated anterior mitral chordae tendineae (arrow)

Ali Rıza Akyüz, Selim Kul

Department of Cardiology, Akçaabat Haçkalı Baba State Hospital;
Trabzon-Turkey

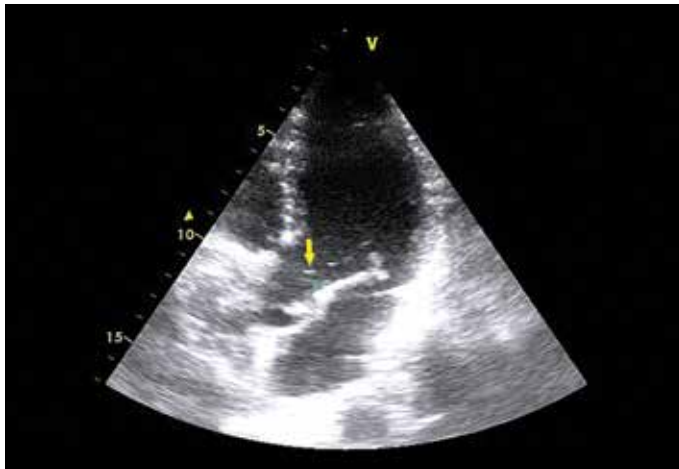


Figure 3. Transthoracic echocardiography (apical 5-chamber view) demonstrates an elongated anterior mitral chordae tendineae protruding into the left ventricular outflow tract (arrow)

Video 1. Transthoracic echocardiography (apical 5-chamber view) demonstrates an elongated anterior mitral chordae tendineae protruding into the left ventricular outflow tract

Video 2. Transthoracic echocardiography (parasternal long axis) demonstrates an elongated anterior mitral chordae tendineae protruding into the left ventricular outflow tract

Address for Correspondence: Dr. Ali Rıza Akyüz,
Akçaabat Haçkalı Baba Devlet Hastanesi,
Kardiyoloji Kliniği, Trabzon-Türkiye
Phone: +90 462 227 77 77
Fax: +90 462 227 77 86
E-mail: dralirizaakyuz@gmail.com

©Copyright 2015 by Turkish Society of Cardiology - Available online at www.anatoljcardiol.com
DOI:10.5152/akd.2015.6090

Combination of tetralogy of Fallot with absent pulmonary valve and left pulmonary artery originating from patent ductus arteriosus: A rare association in an infant

A 6-month-old female infant was transferred because of respiratory distress. A chest radiograph demonstrated a well delineated, huge

mass on the upper and middle part of the right lung (Fig. 1). Two-dimensional echocardiography showed dilatation of the right ventricle, main pulmonary artery (20 mm, z score +4.4) and right pulmonary artery (22 mm, z score +7.8) but dilatation of the left pulmonary artery was not observed (Fig. 2a, b). There was no identifiable pulmonic valve tissue in the area of the right ventricular outflow tract. Color Doppler echocardiogram showed turbulent flow across the right ventricular outflow tract with systolic right ventricle pulmonary artery gradient of 70 mm Hg. There was a wide jet of pulmonic regurgitant flow essentially filling the right ventricular outflow tract (Fig. 2c-d). Computed tomographic angiography (256 Slices, Somatom Definition; Siemens Medical Solutions, Germany) showed non-confluent pulmonary arteries with dilated right and left pulmonary arteries connected to the patent ductus arteriosus (Fig. 3a, b). During the 7th month, she underwent a total corrective operation [ventricular septal defect (VSD) closure, right ventricular outflow tract (RVOT) reconstruction, and right ventricle-pulmonary artery conduit implantation with 19 mm pulmonary homograft, plication of the right pulmonary artery and unifocalization of the left pulmonary artery]. The infant has no significant residual symptoms after more than 2 years post successful surgery.

Tetralogy of Fallot with absent pulmonary valve syndrome is a rare variant of tetralogy of Fallot. It may clinically be present with airway compression from dilated pulmonary arteries or congestive heart fail-



Figure 1. Chest radiography shows well delineated huge mass on the upper and middle part of the right lung due to enlarged right pulmonary artery

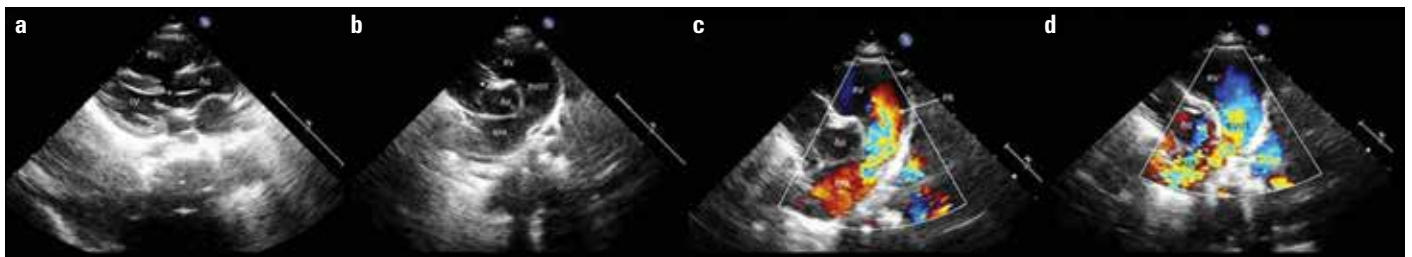


Figure 2. a-d. Two-dimensional echocardiography shows malalignment ventricular septal defect, dextroposition of the aorta, dilatation of main pulmonary artery and right pulmonary artery but not of the left pulmonary artery (a, b). Color Doppler echocardiography shows turbulent flow across the right ventricular outflow tract and large regurgitation belonging to pulmonary insufficiency (c, d)

Ao - aorta; asterisk - indicates dextroposition of the aorta; LV - left ventricle; MPA - main pulmonary artery; PR - pulmonary regurgitation; RPA - right pulmonary artery; RV - right ventricle; and RVOT - right ventricular outflow tract