

Figure 3. Intraoperative view of a calcified aneurysm right to the aorta. Advanced calcification is seen through the right and left atrial walls

mitral valve replacement was replaced. Further complications including an important hemorrhagic diathesis reliably caused by long cross-clamping time (260 minutes totally), occurred and lead to the death of a patient.

We describe our experience in the therapeutical management of a calcified ASV. We believe that the calcification of aneurysm wall is a factor that could contribute to increase mortality rate.

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Coronary to pulmonary artery fistula associated with significant coronary atherosclerosis

Ciddi koroner aterosklerozun eşlik ettiği koroner arter fistülü olgusu

A 47-year-old man with history of smoking was admitted to our institution having exercise dyspnea and substernal chest pain for 3 months. He had no history of cardiac disease or trauma and his physical examination was normal. The 12-lead electrocardiogram revealed T wave inversion in leads V4-V6. The exercise treadmill stress test showed ST depression of 1.5 mm in leads V1-6. Coronary angiogram demonstrated a coronary artery fistula (CAF) originating from the proximal left anterior descending coronary artery superior to a critical atheromatous stenosis (Fig. 1), draining into the pulmonary artery (Fig. 2. Video 1. See corresponding video/movie images at www.anakarder.com). The patient was planned to undergo coronary surgery.

Among coronary vessel anomalies CAF is the rare entity(1). Although it is suggested that coronary arterial atherosclerosis affects patients with CAF in the same way as in normal humans (2); the combination of fistula and significant obstruction of the same coronary artery is by far a less frequent phenomenon (2-3). Myocardial ischemia resulting from fistula steal phenomenon cannot be clinically distinguished from that of coronary atherosclerosis, if these conditions coexist in the same patient. Although noninvasive imaging may facilitate the diagnosis and identification of the origin and insertion of CAF, coronary angiography is necessary to show the presence of concomitant atherosclerosis (4).

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Figure 1. A coronary artery fistula is originating from the proximal left anterior descending artery



Figure 2. The coronary artery fistula is draining into the pulmonary artery

References

1. Wandwi WB, Mitsui N, Sueda T, Orihashi K, Sueshiro M, Azuma K, et al. Coronary artery fistula to bronchial artery on contralateral side of coronary atherosclerosis and myocardial insufficiency. A case report. *Angiology* 1996; 47: 211-3.
2. Rangel A, Chavez E, Badui E, Diaz R, Solorio S, Verdin R, et al. Case report of association of congenital coronary fistulae with coronary atherosclerosis. *Rev Invest Clin* 1995; 47: 481-6.
3. Castedo E, Oteo JF, Burgos R, Ugarte M, Cristobal C, Tebar E, et al. Coronary artery fistula as a bypass of a left anterior descending coronary artery stenosis. *Ann Thorac Surg* 1997; 64: 1813-4.
4. Gowda RM, Vasavada BC, Khan IA. Coronary artery fistulas: clinical and therapeutic considerations. *Int J Cardiol* 2006; 107: 7-10.

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Aortopulmonary window associated with anomalous right coronary artery: a rare combination

Anormal sağ koroner arter ile aortopulmoner pencere birlikteliği görüntülenmesi

A 4-month-old boy was admitted to our department with dyspnea and clinical findings of congestive heart failure. He had no family history of cardiac disease and consanguineous marriage. At prenatal period, he had no risk factor for developing congenital heart disease. On

physical examination his blood pressure was 74/44 mmHg, and heart rate was 120 bpm. Auscultation revealed a systolic murmur (3/6) at left sternal border. Normal sinus rhythm was observed on electrocardiogram with biventricular enlargement and no signs of ischemia. As the first step, echocardiography showed an aortopulmonary window and anomalous right coronary artery from pulmonary artery. The patient was referred for angiography for definitive diagnosis of the anomaly (Fig. 1, Video 1, 2. See corresponding video/movie images at www.anakarder.com). Cardiac catheterization revealed proximal type of aortopulmonary window and right coronary artery originating from the pulmonary artery (Fig. 2). Left coronary artery was located normally.

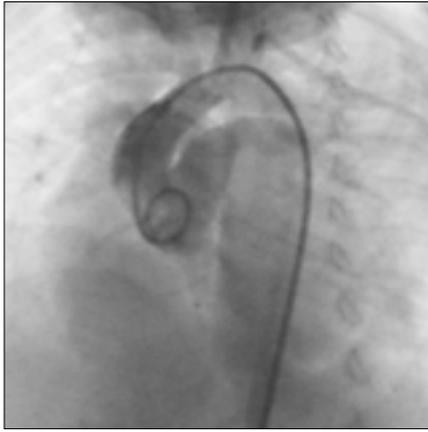


Figure 1. Aortic root injection

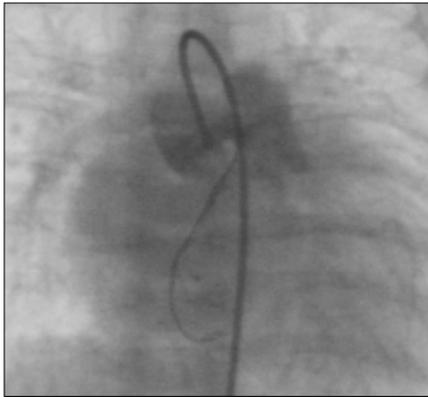


Figure 2. Visualization of abnormal coronary artery together with aortopulmonary window

The association of aortopulmonary window with anomalous right coronary artery originating from pulmonary artery is a very rare entity. As all patients with similar association had dominated signs of aortopulmonary window, associated anomalies are mostly overlooked. However, patients having complications related to ischemic events are candidates for careful evaluation of any coronary arterial anomaly. Early surgical intervention is mandatory because of high risk of irreversible pulmonary vascular disease.

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Transcatheter closure of large fistula between right coronary artery and pulmonary artery using Amplatzer vascular plug in a patient with pulmonary atresia and ventricular septal defect

Pulmoner atrezi - ventriküler septal defekt olgusunda sağ koroner arter pulmoner arter arasındaki fistülün transkateter olarak Amplatzer vasküler tıkaç ile kapatılması

A 38-year-old man was admitted with pretibial edema, exertional dyspnea, chest pain and cyanosis. On physical examination there was a loud, single second heart sound. A continuous murmur best heard at left second intercostal space radiating to the back was appreciated. Pulse oxymetric oxygen saturation was 85%. Chest X-Ray showed cardiomegaly. The electrocardiogram demonstrated right axis deviation with right ventricular (RV) hypertrophy. Transthoracic echocardiography revealed an overriding aorta with no continuity between RV outflow tract and pulmonary artery (PA), PA branches were confluent and fed by aortopulmonary collaterals. It also revealed enlarged end-systolic and end-diastolic dimensions of both ventricles with reduced fractional shortening (14%) and ejection fraction (30%) of left ventricle. Myocardial

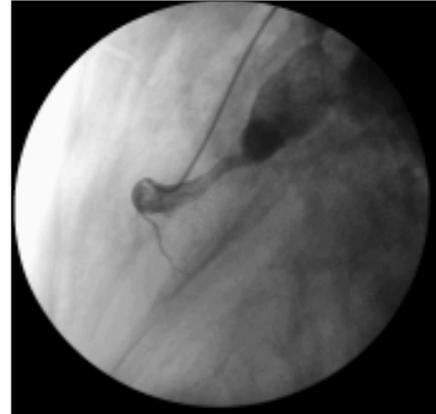


Figure 1. Right coronary artery (RCA) injection shows the presence of a large fistula between the RCA and main pulmonary artery

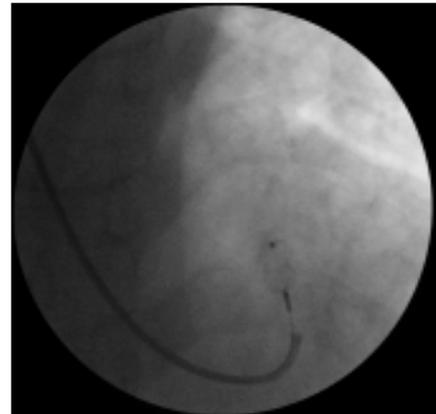


Figure 2. Amplatzer vascular plug positioned within the fistula