



A case of a single coronary artery originating from left coronary sinus of Valsalva associated with serious coronary artery disease

Ciddi koroner arter hastalığı olan sol koroner sinüs Valsalva'dan çıkan tek koroner arter olgusu

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A 77-year-old woman with history of hypertension and hypercholesterolemia was admitted to our clinic because of chest pain at rest. There was no history of diabetes mellitus, smoking and experienced myocardial infarction. Her family history was not significant for coronary heart disease. The physical examination was normal, blood pressure was 160/90 mmHg, and heart rate was 60 bpm. Electrocardiogram showed sinus rhythm, reduction in R wave height and abnormally tall T waves in leads V1-V4. There were minimal increases in CK-MB levels and Troponin I was positive on serial determinations. Transthoracic echocardiogram revealed hypokinesis of the apical-mid segment of interventricular septum with global left ventricular ejection fraction of 50%. Coronary angiography demonstrated a single coronary artery originating from the left sinus of Valsalva. The left main artery had a normal distribution; with the right coronary artery arising from the proximal left main

artery. The left main artery courses anteriorly and supplies the left circumflex and the left anterior descending artery. There was a significant stenosis in the proximal in the right coronary artery. There were two lesions (90% and 70% stenoses) in left anterior descending artery after a diagonal branch. There was a 90% stenosis in the left circumflex artery (Fig. 1, 2 and Video 1, 2. See corresponding video/movie images at www.anakarder.com). Aortography showed one coronary ostium in the left sinus of Valsalva and no ostium in the right sinus of Valsalva. The left ventriculography displayed hypokinetic apex. The patient was decided to be surgically treated. But she did not accept operation, so we applied medical therapy and risk factor modification.

A single coronary artery is a rare congenital anomaly with an incidence of 0.02-0.04%. We aimed to introduce a case of a single coronary artery, associated with old age and serious coronary artery disease.

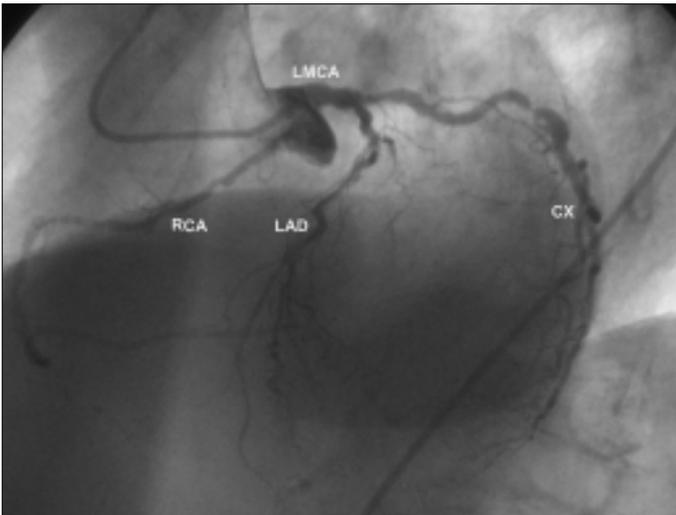


Figure 1. The 70° left anterior oblique view with 30° caudal angulation view of the single coronary artery arising from the left coronary sinus of Valsalva

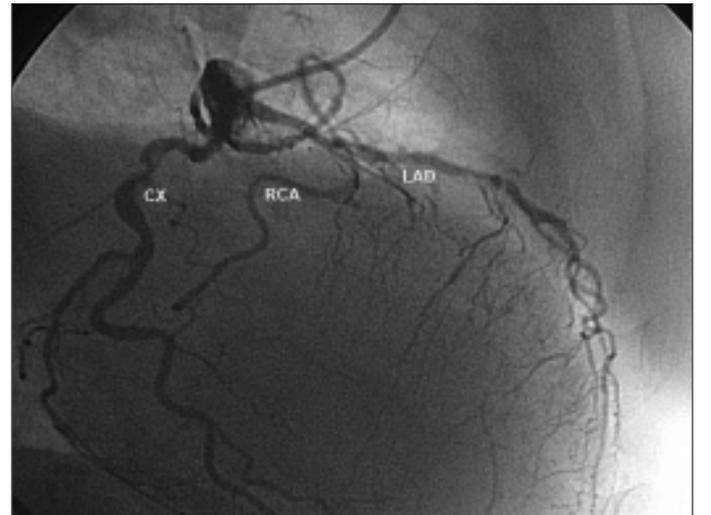


Figure 2. The 60° right anterior oblique projection with 15° caudal angulation view of the single coronary artery arising from the left coronary sinus of Valsalva