


Multislice computed tomography demonstrating anomalous left coronary artery from the pulmonary artery

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Anomalous left coronary artery from the pulmonary artery (ALCAPA) is a rare congenital anomaly that is often referred to as Bland–White–Garland syndrome in literature. In this case, a 44-year-old female with no significant past medical history presented with exertional dyspnoea and chest pain. Electrocardiography showed atrial fibrillation and left bundle branch block. Echocardiography showed moderately severe mitral and tricuspid regurgitation. Coronary angiogram showed an incidental finding of ALCAPA (see Supplementary material online, Video S1). Multislice computed tomographic scan confirmed the diagnosis. She was surgically treated with a Button transfer procedure and pericardial patching, 28 mm saddle mitral ring annuloplasty and De Vega tricuspid annuloplasty. Control coronary artery angiography performed after surgery showed patent left coronary circulation and resolved collateral supply (see Supplementary material online, Video S2 and Video S3).

ALCAPA has an estimated incidence of 1 in 300 000 live births1 (between 0.24 and 0.46% of all congenital cardiac anomalies).2 The embryological anomaly is a failure of the normal communication of the left coronary bud in the aorta with an abnormal connection to the pulmonary bud. Ninety per cent of these patients are symptomatic within first several months of life.2 Ninety per cent of the patients who survive into adulthood will die of sudden cardiac death at a mean age of 35 years.3 The oldest reported patient in English literature is 72 years old.2 Myocardial ischaemia in the anterior territory is the cause of death in most cases. The diagnosis of ALCAPA requires a high level of suspicion. Doppler echocardiography may be sufficient to diagnose ALCAPA. ALCAPA has a high mortality rate without surgery.

Figure 1 This preoperative multislice cardiac computer tomography with three-dimensional construction demonstrated the dilated right coronary artery, left coronary artery, and anomalous left coronary artery originating from the pulmonary artery.

**Supplementary data**

Supplementary data are available at European Journal of Echocardiography online.

**References**


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