

### Coronary artery abnormalities- case report

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**Purpose:** Coronary artery anomalies (CAAs) are a diverse group of congenital disorders whose manifestations and pathophysiological mechanisms are highly variable. To understand the clinical impact of CAAs, the fundamental challenge is the firm establishment for a particular type of CAA, of a mechanism capable of interference with the coronary artery's function, which is to provide adequate blood flow to the dependent myocardium. The present review focuses on anomalous origination of a left anterior descending coronary artery - LAD - coming out of the common ostium with the right coronary artery (RCA) from the right coronary cusp. Patients who are symptomatic and have anomalous origination of a coronary artery undergo medical treatment /observation, coronary angioplasty with stent deployment, or surgical repair.

**Methods:** We present a 72 years old patient who was hospitalized due to frequent chest pain, tingling right arm and right leg accompanied by headache. He had history of previous myocardial infarction 10 years ago, hypertension and dyslipidemia. Several clinical investigations were performed during actual hospitalization: ECG, echocardiography (ECHO), 24-hour Holter ABP, carotid Doppler ultrasonography (CDU), coronary angiography (CA) and carotidography.

**Results:** ECG showed sinus rhythm, with heart rate of 70/min, and Q-wave in inferior leads. Echocardiography revealed hypokinesia of the inferior wall and left ventricle ejection fraction EF 73%. Holter ABP showed regulated blood pressure levels. CDU detected stenosis of the left internal carotid artery (LICA) >95%. CA showed tortuous blood vessels, presenting anomalous LAD, originating from the common ostium with the RCA from the right coronary cusp, with no significant coronary artery disease. Carotidography confirmed significant LICA stenosis and carotid artery stenting (CAS) was performed.

**Conclusions:** Coronary artery anomalies should be regarded as an uneven diverse group of congenital disorders whose manifestations and pathophysiological mechanisms are highly variable. Only centers dedicated to CAAs can give rise to the large-scale studies needed to user approach involving invasive treatment, CA which asserts that type of anomaly as our case.

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