Rare Coronary Anomaly in Young Patient with Atypical Chest Pain

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Coronary anomalies affect 0.3% to 1% of the population, ranging between coronary angiography or autopsy series. It is known that some anomalies have a benign course while others are causes of sudden death or heart failure. The origin and proximal course of anomalous coronary arteries are the main predictors of severity. Currently, it is the second most common cause of sudden cardiovascular death in competitive athletes.

Coronary angiography allows the accurate noninvasive diagnosis of coronary anomalies with low radiation doses. Research of anomalous coronary arteries is classified as a class I indication in the Guidelines of the Brazilian Society of Cardiology.

The prevalence of anomalies is difficult to determine, but the most common malignant type is the anomalous origin with interarterial course between the main pulmonary artery and the aorta; and the most severe is probably the ALCAPA syndrome, with the left coronary artery coming from the main pulmonary artery.

Keywords

Tomography, X Ray computed; Death, Sudden, Cardiac; Heart failure; Coronary vessel anomalies.

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We report the case of a 36-year-old male patient with family history of coronary artery disease and atypical chest pain who underwent coronary angiography. The radiation dose was 2.3 mSv and contrast was 70 mL. There was absence of obstructive coronary artery disease and anomaly of the origin of the right coronary artery, which originated from the proximal third of the left anterior descending artery and benign course anterior to the main pulmonary artery. This anomaly is extremely rare. It is estimated that its prevalence is smaller than 0.9%, of all coronary anomalies.

Authors' contributions

Data collection: Cerbino FME, Camargo GC, Carvalho FP, Gottlieb I; Data analysis and interpretation: Cerbino FME, Camargo GC, Carvalho F, Gottlieb I; Manuscript writing: Cerbino FME, Camargo GC; Critical revision of the manuscript for important intellectual content: Gottlieb I.

Potential Conflicts of Interest

No relevant potential conflicts of interest.

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Academic Association

This study is not associated with any graduate program.

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Image Article

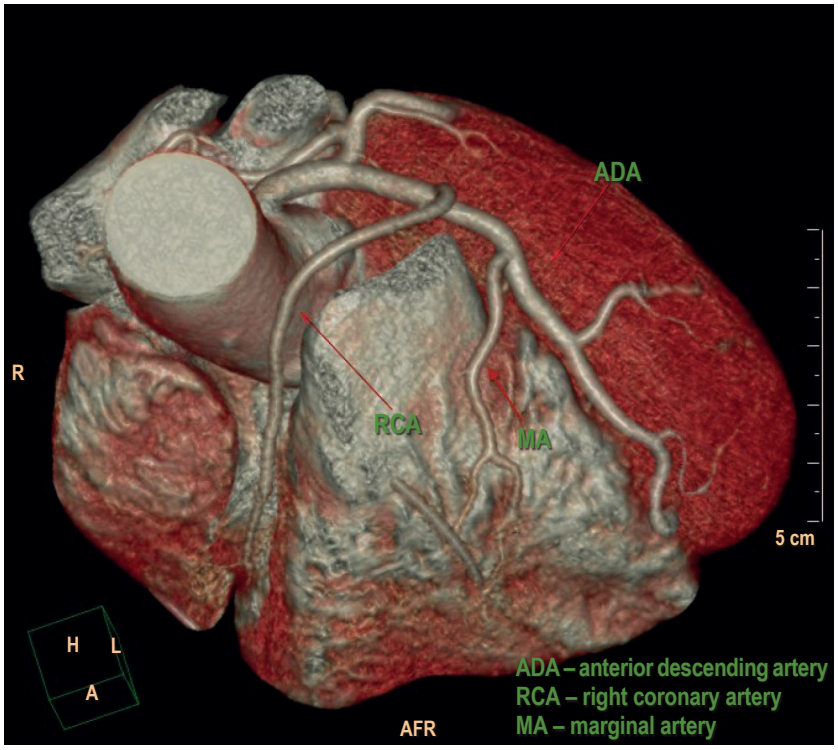

Figure 1 - *Anomalous origin of the RCA and MA.*

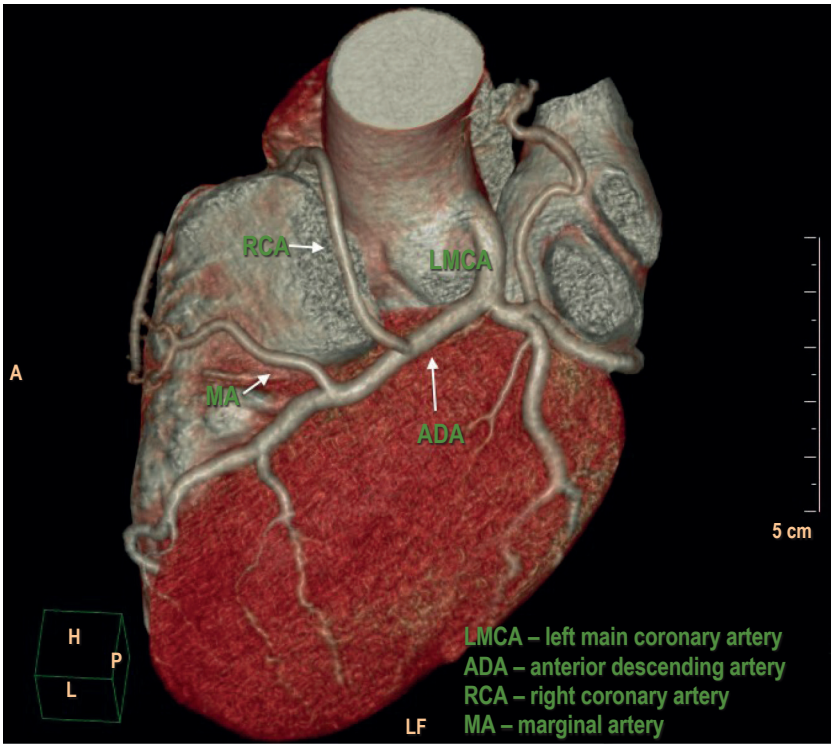

Figura 2 - *Anomalous origin of the RCA and MA.*

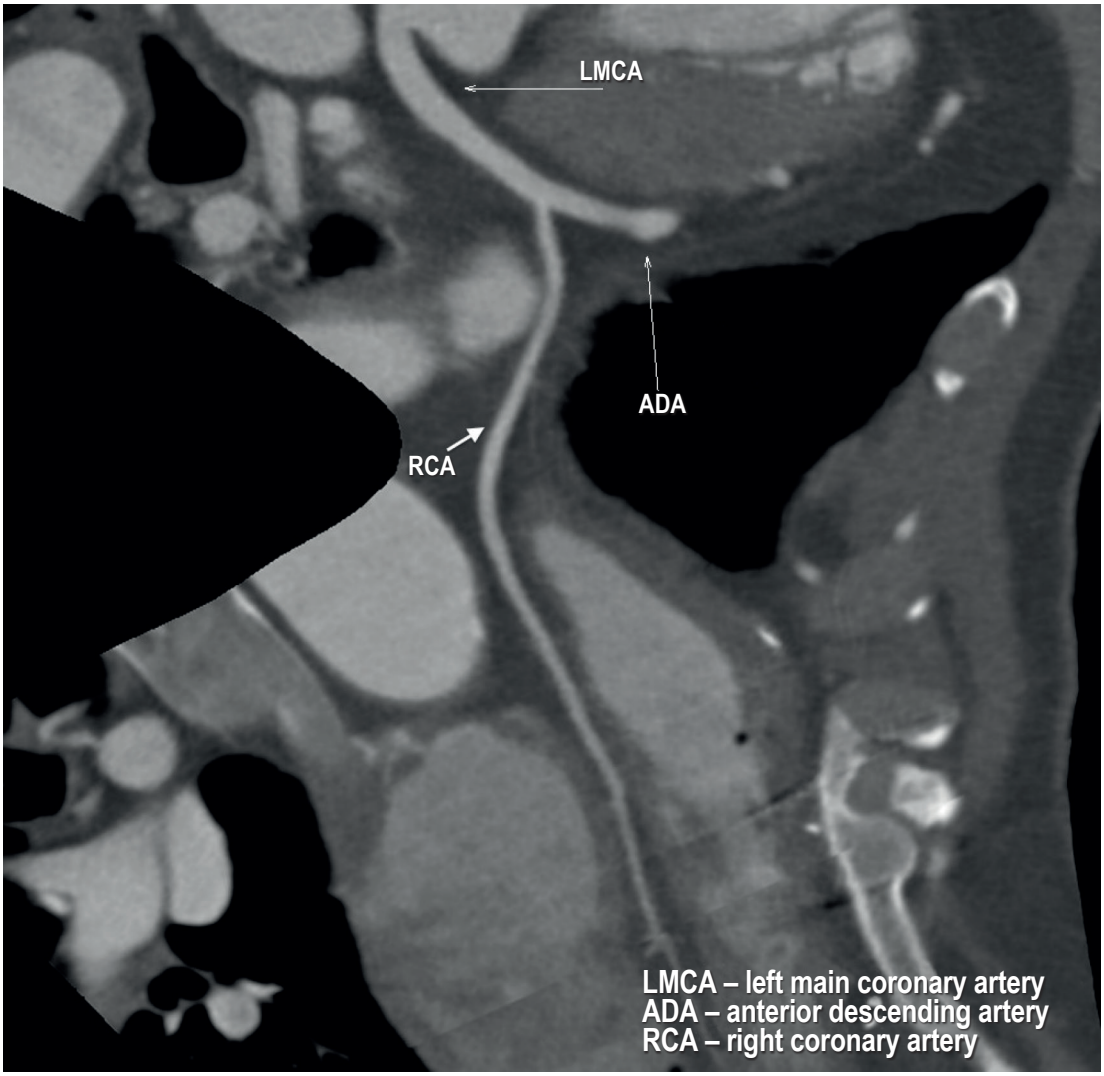

Figura 3 - *Origem anômala da RCA.*