

Anomalous origin of the left main coronary artery from the right coronary sinus of Valsalva

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ARTICLE INFO

Article history:

Submitted: 6. 6. 2022

Accepted: 3. 7. 2022

Available online: 24. 5. 2023

Klíčová slova:

Anomální odstup kmene levé

věnné tepny

Aortální stenóza

Koronární anomálie

Keywords:

Anomalous origin of the left main

Aortic stenosis

Coronary anomaly

SOUHRN

U třiasedmdesátiletého muže byla před náhradou aortální chlopně pro těžkou aortální stenózu indikována koronarografie, která prokázala abnormální odstup kmene levé koronární tepny; kmen odstupoval z pravého koronárního Valsalvova sinu a procházel před plicnicí.

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ABSTRACT

A 73-year-old man underwent coronary angiography before aortic valve replacement due to severe aortic stenosis showing an abnormal origin of the left main coronary artery (LMCA). The LMCA arises from the right coronary sinus of Valsalva and passes anteriorly to the pulmonary trunk.

A 73-year-old man underwent coronary angiography before aortic valve replacement due to severe aortic stenosis showing an abnormal origin of the left main coronary artery (LMCA). The LMCA arises from the right coronary sinus of Valsalva and passes anteriorly to the pulmonary trunk (Fig. 1A).

The patient was asymptomatic and has had only one episode of syncope caused by aortic stenosis.

The most common anomaly is separate ostium of left anterior descending artery (LAD) and left circumflex artery (LCX) in the absence of LMCA (0.6%) followed by an anomalous right coronary artery (RCA) from the left coro-

nary sinus of Valsalva (0.08%) and LCX originating from the right coronary sinus of Valsalva (0.08%).

Our case shows a very rare congenital coronary anomaly of anomalous origin of the LMCA from independent ostium of the right coronary sinus of Valsalva (0.008%) [1]100 patients (89.3%).

The anomalous origin of the LMCA from the right coronary sinus of Valsalva can be subclassified into 4 types based on the relationship of the LMCA to the great vessels: septal, anterior to the pulmonary trunk, intraarterial (between the pulmonary trunk and the aorta) and retro-aortic.²

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DOI: 10.33678/cor.2022.076

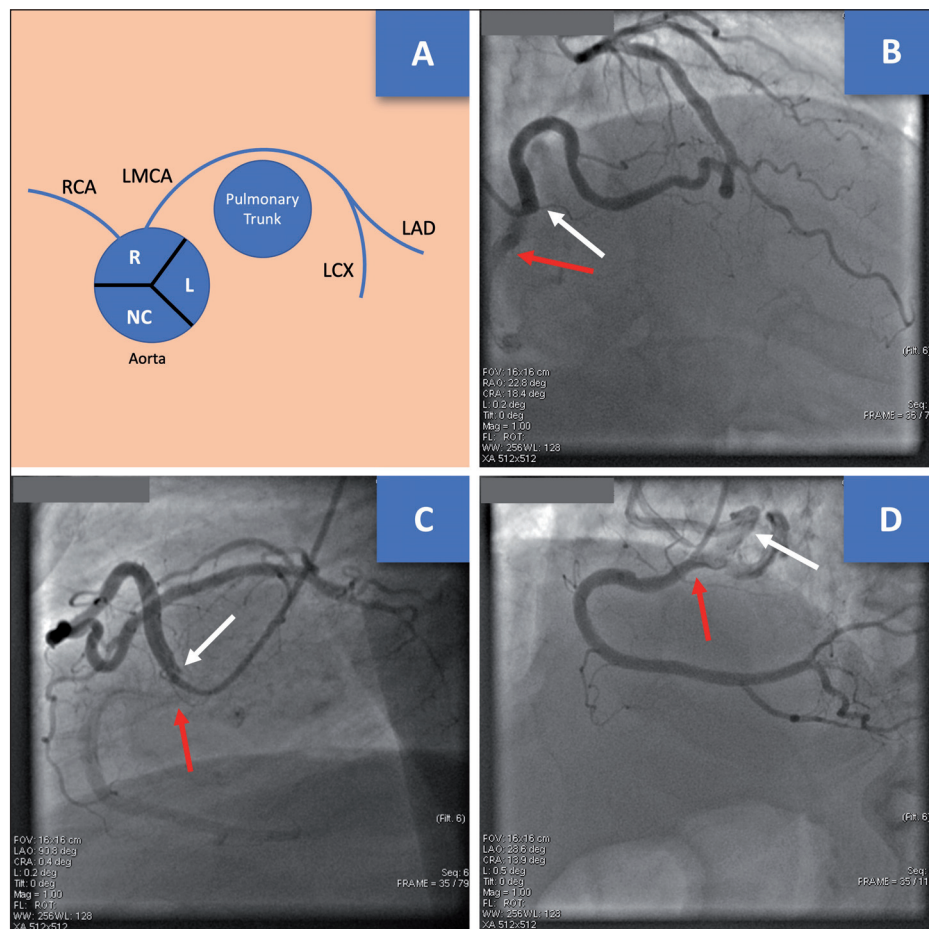


Fig. 1 – (A) Diagram of anterior anomalous LMCA. (B) Angiography RAO cranial LMCA (white arrow). (C) Angiography LAO LMCA (white arrow) + RCA (red arrow). (D) Angiography LAO, RCA (red arrow) + LMCA (white arrow). L – left; LAD – left anterior descending artery; LCX – left circumflex artery; LMCA – left main coronary artery; NC – non coronary; R – right, RCA – right coronary artery.

The LMCA anterior to pulmonary trunk (our case) is generally a more benign variant along with the septal type (Fig. 1A).

Coronary anomalies are identified early in symptomatic cases, whereas in asymptomatic patients they are often detected accidentally during other diagnostic investigations.

In our case, this coronary study was useful in guiding a correct surgical strategy for aortic valve replacement.³

Conflict of interest

The authors declares that there is no conflict of interest.

Ethical statement

Ethical approval was waived by the local Ethics Committee of Grande Ospedale Metropolitano of Reggio Calabria in

view of the retrospective nature of the study and all the procedures being performed were part of the routine care.

Funding

The authors did not receive support from any organization for the submitted work.

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