

Coronary Artery Fistula in Elite Athlete

Fístula arterial coronaria en atleta de elite

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This is the case of an 18-year-old male, professional rugby player, with no previous history of cardiovascular disease and a maximum VO₂ of 61 ml/kg/min. Physical examination was within normal limits, and the electrocardiogram was normal. Short axis Doppler echocardiography of the great vessels identified minimal color-Doppler flow on the wall of the pulmonary artery (PA) trunk 4-5 mm from the valvular plane (PV), which did not seem to correspond to pulmonary regurgitation (Figure 1a and 1b, arrow).

In view of suspected vascular anomaly, a cardiac CT scan was requested, which confirmed arterial communication or complex “coronary artery fistula” originating in the distal third of the left main coronary artery (LMCA) (Figure 2a, arrow), with subsequent anastomosis with anomalous bronchial branch (Figure 2a, arrowhead) and their final drainage through a common trunk into the pulmonary artery (Figure 2b, circle).

Coronary artery fistula has a prevalence of 0.7-1% in the general population. The most common is the coronary-pulmonary path and only 3% correspond to complex fistulas. (1) There is currently no protocol for its clinical management in athletes. If athletes are asymptomatic with no evidence of ischemia, follow-up is recommended. (2)

Conflicts of interest

None declared (See authors' conflicts of interest forms on the website/ Supplementary Material).

Ethical considerations

Not applicable.

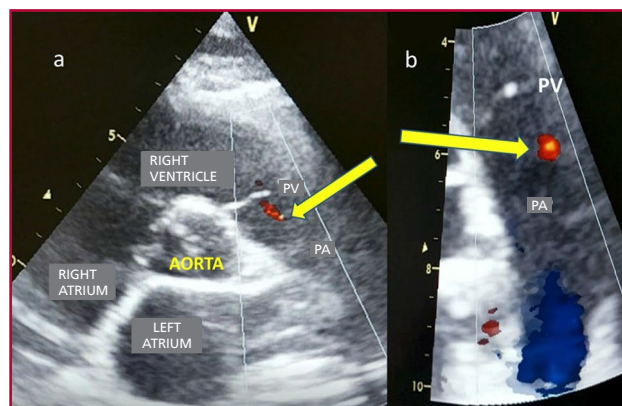


Fig. 1. Color-Doppler echocardiography image. Short axis view of large vessels (a). The arrow targets a small color flow jet on the pulmonary artery (PA) trunk at 4 mm from the pulmonary valve (PV) plane, which does not seem to have regurgitation (b).

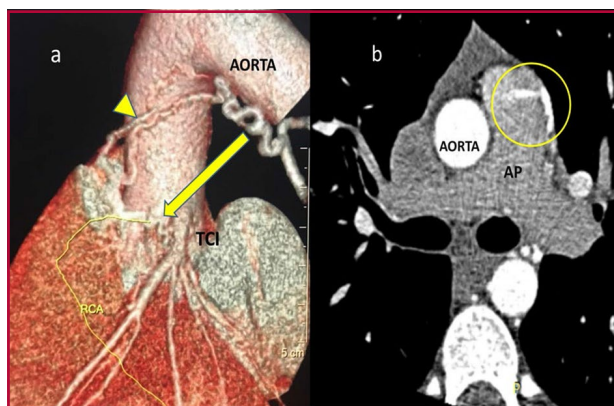


Fig. 1. Three-dimensional cardiac CT scan reconstruction (a). The arrow targets the origin of a coronary fistula on the distal left main coronary artery (LMCA), and its anastomosis with a bronchial branch (arrowhead). CT scan image (b) showing a flow jet on the trunk of the pulmonary artery (PA) corresponding to the fistula outlet.

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