Coronary Artery-Main Pulmonary Artery Fistula

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FIG. 1 (A) 30° right anterior oblique projection showing a tortuous vessel arising from the left anterior descending coronary artery with a communication (arrow) to the pulmonary artery. (B) Anterior posterior 20° caudal projection showing the tortuous fistula (arrow) between the diagonal branch and the pulmonary artery (PA). (C) 60° left anterior oblique with 30° cranial projection showing proximal narrowing in the left anterior descending coronary artery and the fistula (arrow) with the communication to the pulmonary artery. (D) A magnification of the rectangle in (B); the fistula is marked by arrows.

A 70-year-old man with new-onset angina was admitted to the cardiac intensive care unit and treated with intravenous heparin and nitrates and oral aspirin. Coronary angiography revealed multivessel coronary artery disease and a tortuous abnormal vascular complex arising from the diagonal branch

and communicating with the main pulmonary artery. The patient underwent successful coronary artery bypass surgery and ligation of the coronary artery-pulmonary artery fistula.

The incidence of coronary artery fistulas detected during diagnostic coronary angiography is very low (0.1 to 0.26%). Most fistulas are small, hemodynamically insignificant, and their prognosis without intervention is good. Rarely, in patients with concomitant atherosclerotic coronary artery disease, myocardial ischemia may be caused by the phenomenon of "coronary steal."

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