

“Life hanging by a thread”

„Życie wisi na włosku”

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A single coronary artery is the rarest and most outstanding coronary anomaly, with an incidence of less than 0.05%. We reported a case of a 70-year-old female who presented to our institution for non-ST elevated myocardial infarction. Conventional coronary angiography (CCA) revealed a single common ostium (right main trunk) arising from the right sinus of Valsalva; it gave rise to the right coronary artery (usual course) and the left main coronary artery (LMCA; Fig. 1). The LMCA coursed between the aorta and the pulmonary artery and then branched into the left anterior descending artery (LAD) and circumflex arteries (Fig. 2A). The single coronary artery had critical stenosis at the origin of LAD, in the medio-proximal obtuse marginal artery and at the origin of the posterior intraventricular artery (Fig. 2B; [Suppl. Video 1 — see journal website](#)). The patient underwent to threefold coronary artery bypass grafts; no computed tomography was performed because of the haemodynamic instability. The perioperative and postoperative periods were free of major cardiac and general complications. The patient was discharged in the 10th postoperative day. The atypical coronary anomaly was type R-II B according Lipton’s classification, or anomalous origin of coronary ostium from the opposite, facing “coronary” sinus (Variants: single coronary artery) according to Angelini’s classification [Lipton M] et al. *Radiology*, 1979; 130: 39–47; Angelini P et al. *Circulation*, 2002; 105: 2449–2245]. As described in our image report, it is important to detect this kind of coronary anomaly because of the high life-threatening risk: the course between the aorta and the pulmonary artery could be the cause of many sudden cardiac deaths.

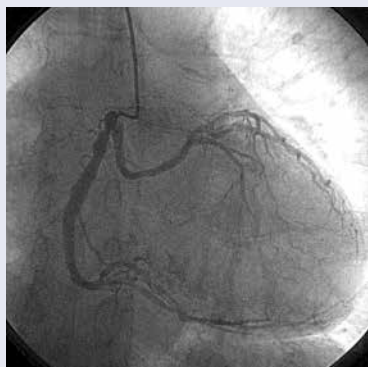


Figure 1. Right anterior oblique view of a conventional coronary angiogram following injection into the single common ostium. After arising the right main trunk divided in the right coronary artery and an aberrant left main coronary artery

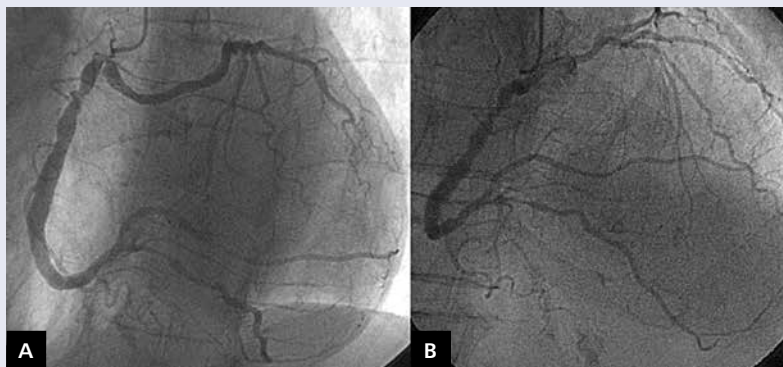


Figure 2. **A.** Angiographic view of the left coronary artery course. The left main coronary artery coursed between the aorta and the pulmonary artery and then branched into the left anterior descending artery (LAD) and circumflex arteries; **B.** The single coronary artery had critical stenosis at the origin of LAD, in the medio-proximal obtuse marginal artery, and at the origin of the posterior intraventricular artery (arrows)

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