

Quadrofurcation of the left main coronary artery

Kwadrifurkacja pnia lewej tętnicy wieńcowej

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A 45-year-old man was admitted to our hospital's cardiology service suffering from an intermittent chest pain and exertional dyspnoea. The patient was referred to our computed tomography (CT) department to make further evaluation with coronary computed tomography angiography (CTA). In his coronary CTA exam, there were no significant stenosis. But we saw an interesting view at the side of the left main coronary artery (LMCA) division.

An early well-developed first obtuse marginal (OM1) branch of left circumflex artery (LCX) was mimicking quadrofurcation of LMCA with the other three main branches; LCX, left anterior descending artery (LAD) and ramus intermediate (RI) (Figs. 1A–D). Occasionally, the LMCA trifurcates into the LAD, LCX, and RI. There are many anatomical variations of coronary arteries. While some of them are very important and life-threatening, the others have no clinical importance. Although the variation in our case belonged to the second group which has no clinical importance, it should be considered before possible coronary arterial interventions. Multislice ECG-gated cardiac CT is rapidly emerging as a useful noninvasive tool for the evaluation of the coronary arterial tree. Multislice CT may be superior to catheter angiography in defining the ostial origin, proximal course, and termination of the coronary arteries and may be the 'gold standard' for detecting coronary anomalies. We demonstrate an interesting coronary variation with 320-multidetector CT in our case.

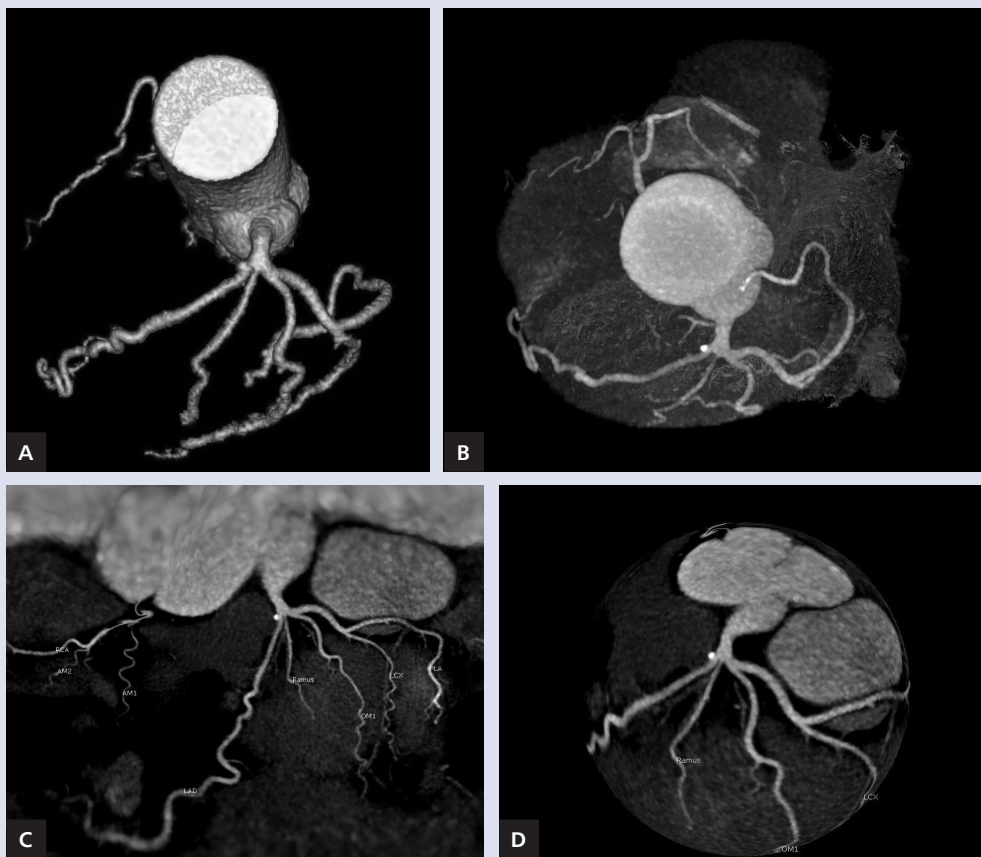


Figure 1. A–D. Volume rendering images; an early well-developed first obtuse marginal (OM1) branch of left circumflex artery (LCX) was mimicking quadrofurcation of left main coronary artery with the other three main branches; LCX, left anterior descending artery (LAD) and ramus intermediate (RI)

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