

Left anterior descending coronary artery fistula into the left atrial appendage

Przetoka gałęzi międzykomorowej przedniej lewej tętnicy wieńcowej do uszka lewego przedsionka serca

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A 69-year-old patient was diagnosed due to angina and cardiac arrhythmia (atrial tachycardia, paroxysmal atrial fibrillation). A 24-h Holter monitoring electrocardiogram (ECG), confirmed normal sinus rhythm with episodes of atrial tachycardia (Fig. 1). Due to dynamic changes of the ST segment in the ECG, and presence of chest pain, coronary angiography testing was proposed, to which the patient did not agree. The coronary computed tomographic angiography showed an abnormal, wide branch of 4 mm calibre, extending from the mid segment of the left anterior descending artery (LAD) (Fig. 2A, B, arrowed). The LAD calibre before and immediately after the branch take off was, respectively, 5.5 mm and 2.2 mm. The abnormal vessel gave rise to several smaller branches draining into the left atrial appendage (LAA) (Fig. 3). Atherosclerotic plaques were not found in any of the coronary arteries. The above described left coronary artery fistula draining into the LAA may be an important factor promoting the occurrence of paroxysmal supraventricular arrhythmia and the reason for the steal syndrome.

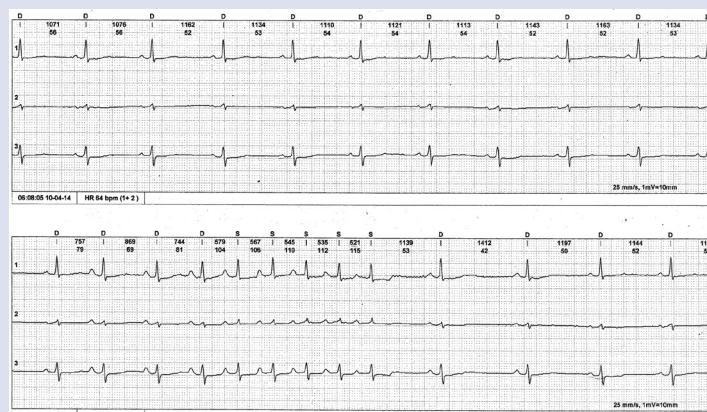


Figure 1. Excerpt of 24-h Holter monitoring — supraventricular arrhythmias in the form of short bursts of self-limiting atrial tachycardia

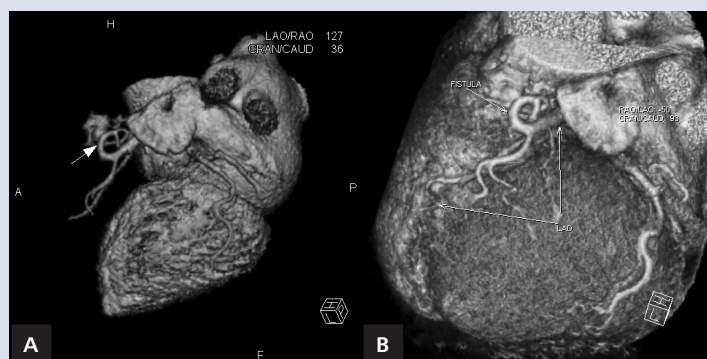


Figure 2. A, B. Left anterior descending (LAD)-left atrial appendage (LAA) fistula (arrow) on computed tomography examination, volume rendering technique



Figure 3. Left anterior descending (LAD)-left atrial appendage (LAA) fistula (arrow) on computed tomography examination — thin slab of maximum intensity projection

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