

# Stenosis, more than critical, of the left main coronary artery in an asymptomatic patient

Bardziej niż krytyczne zwężenie pnia lewej tętnicy wieńcowej u pacjenta bez objawów

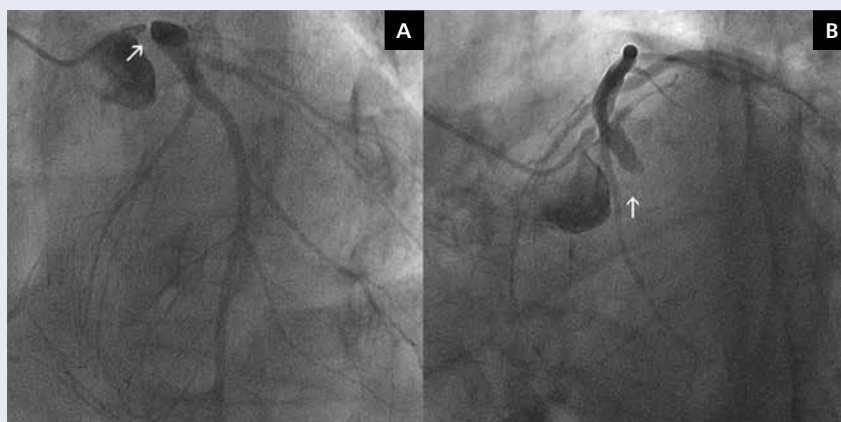
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A 66-year-old-male patient, smoker, with a previous history of hypertension and hypercholesterolaemia, was admitted to our institution because of progressive weakness that developed one week before admission. No previous ischaemic symptoms such as angina, chest pain, or dyspnoea were referred by the patient in the past. Laboratory test and electrocardiogram results were normal. Owing to the presence of cardiovascular risk factors, an echocardiography was carried out, showing severe left ventricle dysfunction and functional mitral valve regurgitation. In view of these findings, a coronary angiography was ordered, which showed a complete interruption of the left main coronary artery (LMCA) (Fig. 1A, B) and left circumflex (LCx) occlusion. Because of the severity of the LMCA occlusion and functional severe mitral valve regurgitation, the patient was submitted to surgery. An intra-aortic balloon pump was inserted preoperatively through the right femoral artery to prevent ischaemic complications and hypotension during induction of anaesthesia. Triplex coronary bypass graft was associated with mechanical On-X 25/33 Conform mitral valve replacement (On-X Life Technologies, Austin, TX, USA). After coronary and valve surgery, the patient recovered well and was discharged home 10 days postoperatively. The absence of coronary symptoms in such a complete left main coronary interruption was astonishing. Severe LMCA disease occurs in 5–7% of patients undergoing coronary angiography. It refers to the presence of a significant stenosis placed at the proximal segment of the left coronary artery, which is divided into the anterior descending artery (LAD) and LCx. Atherosclerosis is the most frequent mechanism of lesion. Due to the location of the lesion, severe LMCA leads to a significant reduction of myocardium perfusion to a large portion of the heart. Subsequent myocardial ischaemia, left ventricle dysfunction, ischaemic mitral valve insufficiency, and arrhythmias place the patient at high risk for life-threatening events and death. Thus, LMCA is associated with a three-year mortality rate of 50%. Coronary artery bypass surgery is a well-established technique that is considered the gold standard treatment of LMCA disease since the early 1970s. It provides excellent proven results. Percutaneous coronary intervention for treatment of LMCA is possible for selected patients and lesions. Stenting can be performed with good results in carefully selected patients. However, this management is sometimes challenging. In cases with acute mitral valve regurgitation associated with LMCA disease, surgical management is indicated to solve both pathologies.



**Figure 1.** **A.** Anteroposterior cranial projection of coronary angiography showing a complete lack of left main coronary artery (arrow); **B.** Left anterior oblique projection revealing complete obstruction of circumflex coronary artery at its origin (arrow)

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**Conflict of interest:** none declared

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