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STUDIUM PRZYPADKU / *CLINICAL VIGNETTE*

Coronary septic embolism: an unusual presentation of acute myocardial infarction

Zatorowość wieńcowa — nietypowa przyczyna ostrego zawału serca

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A 55-year-old man with a history of diabetes mellitus, dyslipidaemia, and peripheral artery disease presented to the emergency department with chest pain of sudden onset. On physical examination, hypotension (BP 70/40 mm Hg), tachycardia (HR 110 bpm), and clinical signs of poor tissue perfusion could be noted. On auscultation, a loud pan-systolic murmur could be heard. Twelve-lead electrocardiogram was performed as part of an initial evaluation, showing ST-segment elevation in the anterior leads. Urgent echocardiogram revealed the presence of oscillating intracardiac masses on aortic and mitral valves together with severe aortic and mitral regurgitation (Fig. 1A). Vasoactive drugs were initiated and emergent coronary angiography was then performed, showing a complete occlusion of the mid left anterior descending artery (Fig. 1B). All these findings suggested the diagnosis of infective endocarditis complicated with coronary septic embolism. We decided to perform thrombus aspiration, obtaining different samples that were sent to the microbiologist for urgent Gram stain. Some minutes later, the suspected diagnosis was confirmed: Gram-positive cocci arranged in pairs and chains could be observed (Fig. 1C). The patient was referred for urgent cardiac surgery. Large size vegetations were excised, and mechanical aortic and mitral prosthetic valves were placed. Later on, cultures of thrombus aspiration, blood samples, and excised valves confirmed that the responsible microorganism was Streptococcus faecalis. Acute coronary syndrome (ACS) due to infective endocarditis is a rare condition that implies poor prognosis. ACS as the first sign leading to the diagnosis of infective endocarditis is even more uncommon if possible. Gram stain of the samples obtained by intracoronary aspiration in this case was found to be a fast and feasible way to confirm the diagnosis of septic coronary embolism and infective endocarditis.

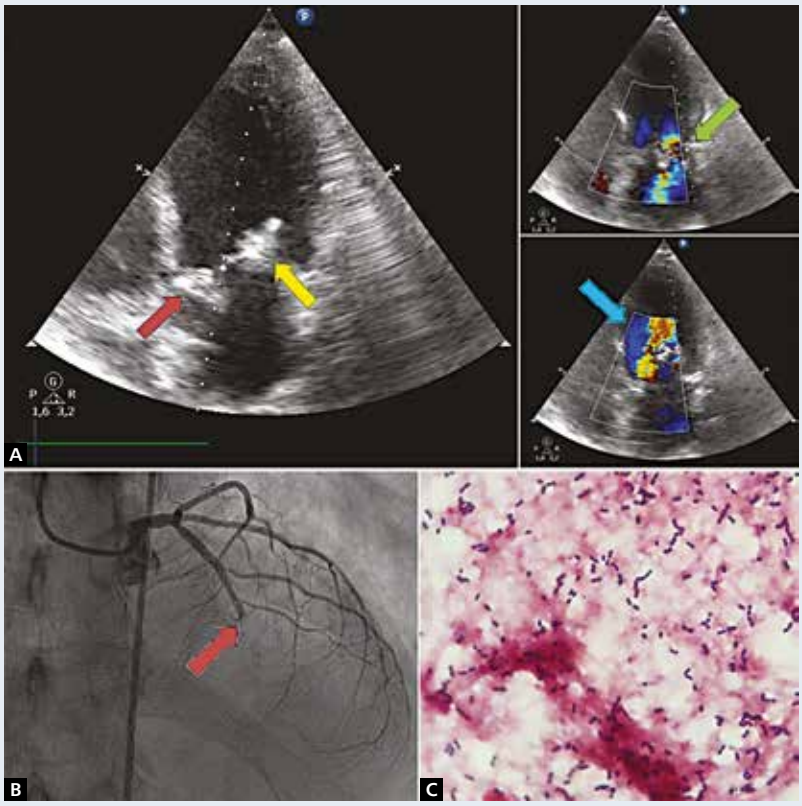

Figure 1. Echocardiogram, coronary angiography, and Gram stain as main findings that allowed the diagnosis of infective endocarditis complicated with septic coronary embolism. Note the presence of aortic (red arrow) and mitral (yellow arrow) vegetations in panel **A**, concomitant severe aortic (blue arrow) and mitral (green arrow) regurgitation can also be seen. In panel **B**, red arrow indicates complete occlusion of the mid-left anterior descending artery. In panel **C**, Gram stain of coronary aspirated sample shows Gram-positive cocci arranged in pairs and chains

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Conflict of interest: *none declared*