


Challenges in diagnosing infective endocarditis in COVID-positive patients – indication for emergency cardiac surgery

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Introduction: Infective endocarditis (IE) is a life-threatening condition, especially when diagnosis is prolonged, as the symptoms of IE overlap with COVID-19 infection (Coronaviruses disease 2019).¹⁻⁴ We present the case series of two patients with a diagnosis of IE concomitant with COVID-19 infection.

Case report: 36-year-old patient admitted to the hospital, due to pneumonia and meningitis caused by *Streptococcus pneumoniae*. Transthoracic echocardiography (TTE) showed paravalvular aortic abscess with mild aortic insufficiency without vegetations. Month after, patient had a positive COVID-19 swab, developed bilateral COVID-19 pneumonia, requiring oxygen therapy and respiratory support, and transferred in University Hospital Dubrava. Transesophageal echocardiography showed aortic root abscess with pseudoaneurysm in the projection of non-coronary cusp (NCC), destroyed NCC and left coronary cusp with mobile vegetations measuring 17x11 mm. The abscess cavity communicates with left ventricular outflow tract (LVOT), with massive aortic insufficiency and the regurgitation jet filling >75% of LVOT diameter (**Figure 1**). Ejection fraction was reduced to 45%, with signs of right ventricle deterioration. Emergent surgery was indicated, patient was successfully operated. Biologic aortic valve was implanted (Edwards Inspiris Resilia A 23) with pericardial patch of the aortic root. Control TTE showed closure of pseudoaneurysm cavity and normal function of bioprosthetic valve. Patient recovered successfully and discharged home twelve days after surgery.

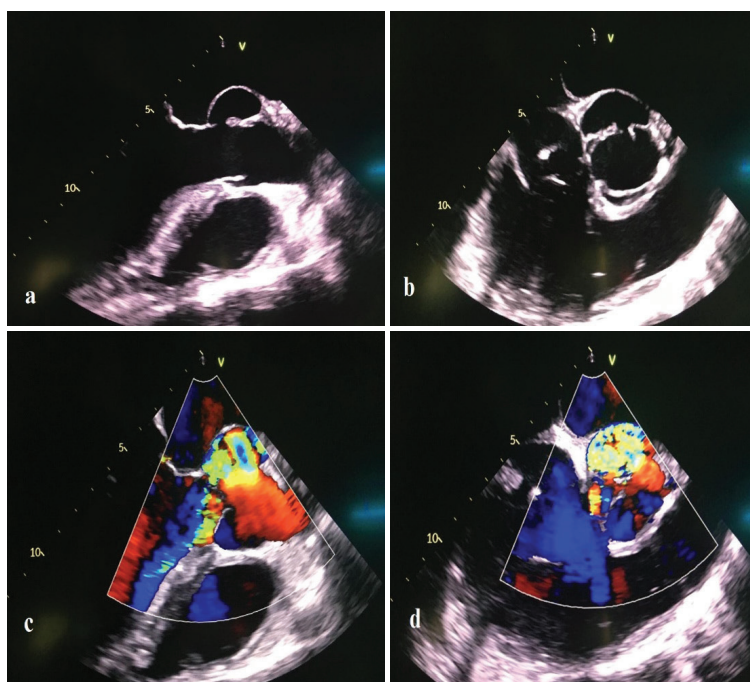


FIGURE 1. Intraoperative transoesophageal echocardiography showing: A, B) pseudoaneurysm cavity communicates with left ventricular outflow tract; C) massive aortic regurgitation; D) turbulent flow within the whole pseudoaneurysm cavity.

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