



Infective endocarditis as a clinical marker for the presence of occult colorectal disease

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Introduction: To present three cases of infective endocarditis caused by an enteric pathogen subsequently found to have colorectal disease¹.

Case series: *Patient 1:* 60-year-old male presented with prolonged fever and heart failure (HF). Examination revealed a systolic-diastolic murmur and bilateral fine crackles. Transesophageal echocardiography (TEE) identified multiple aortic valve vegetations with severe regurgitation. *Streptococcus viridans* was isolated from blood culture. Given the patient's poor oral hygiene, we presumed a dental origin. After six weeks of antibiotic therapy, he underwent successful surgery. Three months later, evaluation of new onset iron deficiency anemia revealed disseminated colorectal adenocarcinoma, causing death one year later. *Patient 2:* 58-year-old man with a one-month history of fever presented with acute HF and systolic murmur. Computerized tomography (CT) angiography showed pulmonary embolism, but urgent bedside echocardiography explained the clinical-radiological disparity, revealing a 15 mm formation of bicuspid aortic valve, highly suspicious for vegetation, with severe regurgitation and moderate stenosis. Cardiogenic shock soon developed, prompting urgent mechanical ventilation, vasopressor, and inotropic therapy. He underwent emergency surgery at a specialized center. *Enterococcus faecalis* was isolated from valve and blood cultures. As part of the search for the source, a colonoscopy was performed, detecting a lateral spreading polypoid adenoma. Staging CT confirmed localized tumor and revealed bilateral renal and splenic infarction. Right hemicolectomy followed one month later. *Patient 3:* 83-year-old man with renal failure on hemodialysis and a history of a transcatheter aortic valve implantation procedure one year earlier was admitted with acute HF and a fever. Physical examination found a continuous precordial murmur, coarse lung crackles, and anasarca. Blood cultures confirmed *Enterococcus faecalis*, and TEE demonstrated aortic cusp vegetations with

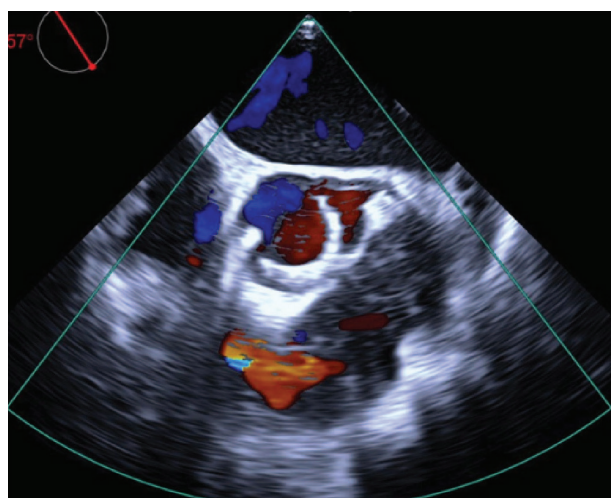


FIGURE 1. Transesophageal echocardiography: mid-esophageal aortic valve short axis view. Drained para-anal abscess with detectable flow by color doppler (arrows).

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FIGURE 2. Transesophageal echocardiography mid-esophageal aortic valve short axis view. Fresh vegetations on the left and right coronary cusp (arrows).

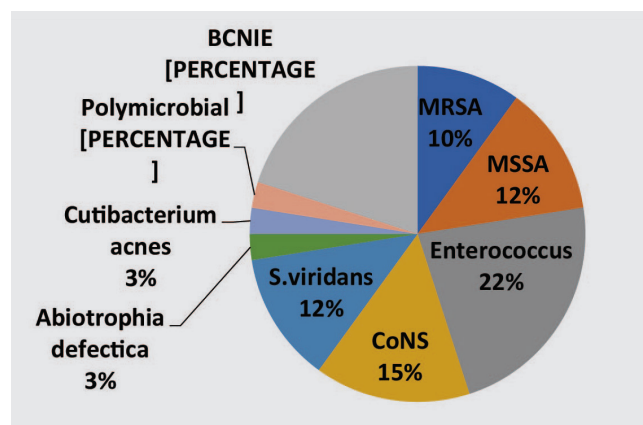


FIGURE 3. Causes of infective endocarditis in General Hospital Zabok and Hospital of Croatian Veterans 2016-2022.

BCNIE=blood culture negative infective endocarditis. MRSA= Methicillin-resistant *Staphylococcus aureus*. MSSA=Methicillin-sensitive *S. aureus*. CoNS= Coagulase-negative staphylococci.

moderate regurgitation and a drained periannular abscess² (Figures 1 and 2). Colonoscopy identified multiple polyps, but polypectomy was deferred due to anticoagulation status. The heart team opted for conservative treatment.

Conclusion: A retrospective analysis of our registry database identified 11 of 45 cases with potentially enteric pathogens (Figure 3). As a result, we implemented a systematic gastrointestinal workup in subsequent patients. These cases emphasize the importance of identifying the source of bacteremia in endocarditis.

LITERATURE

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