TOP 10

Paravalvular aortic abscess with aorto-left atrial fistula in infective endocarditis of the native aortic valve: a case report

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KEYWORDS: infective endocarditis, intracardiac fistula, sepsis, paravalvlar abscess.

CITATION: Cardiol Croat. 2023;18(5-6):162-3. | https://doi.org/10.15836/ccar2023.162

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Introduction: Infective endocarditis (IE) is a life-threatening disease with poor prognosis and high mortality if not diagnosed promptly and intervened early[1]. Perianullary extension accounts for nearly 40% of all native valves IE, most commonly the aortic valve, but formation of an intracardiac fistula occurs in less than 1% of all cases[2].

Case report: We report the case of a 64-year-old man admitted to the intensive care unit because of acute respiratory failure with high fever, high inflammatory blood reactants and electrolyte disbalance. He had previously been extensively evaluated for microcytic anemia due to hemorrhoids, and had also suffered from epilepsy since his youth. A series of blood cultures were obtained and *Streptococcus oralis* was positive. Because of systolic-diastolic murmur and second-degree atrioventricular conduction disturbance on electrocardiography, transthoracic echocardiography (TTE) was performed. TTE showed the aortic valve with a hyperechogenic mass and severe aortic regurgitation with a jet directed toward the septum and moderate aortic stenosis. However, a 1.5 x 2.2 cm hyperechogenic mass was noted in the right atrium adjacent to the aortic annulus **(Figure 1).** Transesophageal echocardiography (TOE) showed a deformed aortic valve with three degenerative leaflets and hyperechogenic mobile vegetations, a circumferential abscess of the aortic annulus with extension of infection toward the right atrium just above the tricuspid septal leaflet and extension of infection toward the left atrium with formation of a fistula detected by color Doppler flow **(Figure 2).** The patient was treated with vancomycin and benzilpenciline and referred to cardiac surgery, where the aortic valve was replaced with a biological prosthesis and the aortic root was patched. The postoperative course was complicated by the COVID -19 infection. A series of control blood cultures were sterile. After two months of treatment, the patient was discharged home with normal TTE function of the biological aortic valve **(Figure 3)**.

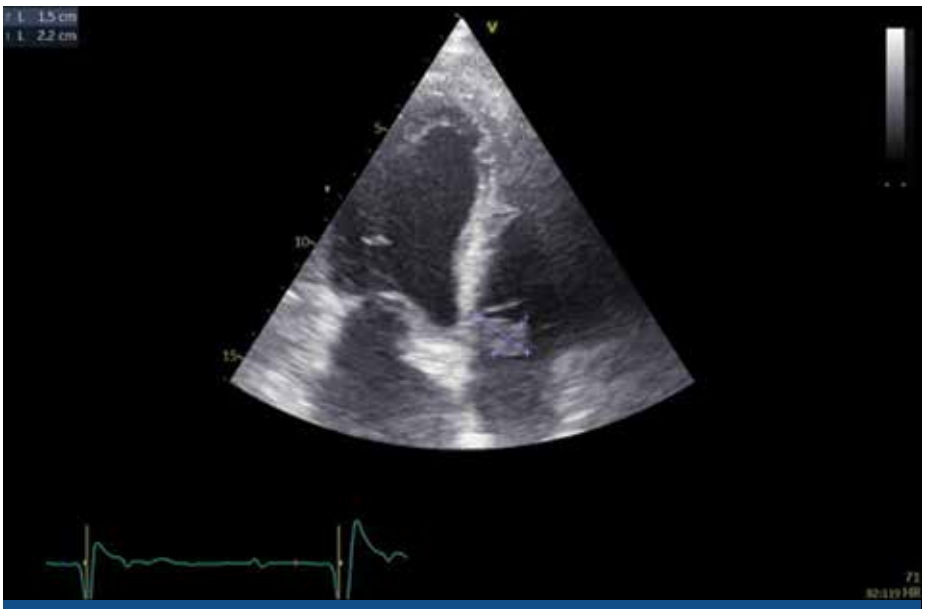

FIGURE 1. Transthoracic echocardiography. Three-chamber view with a hyperechogenic mass in the right atrium measuring 1.5 x 2.2 cm.

RECEIVED:
March 15 2023
ACCEPTED:
March 29, 2023

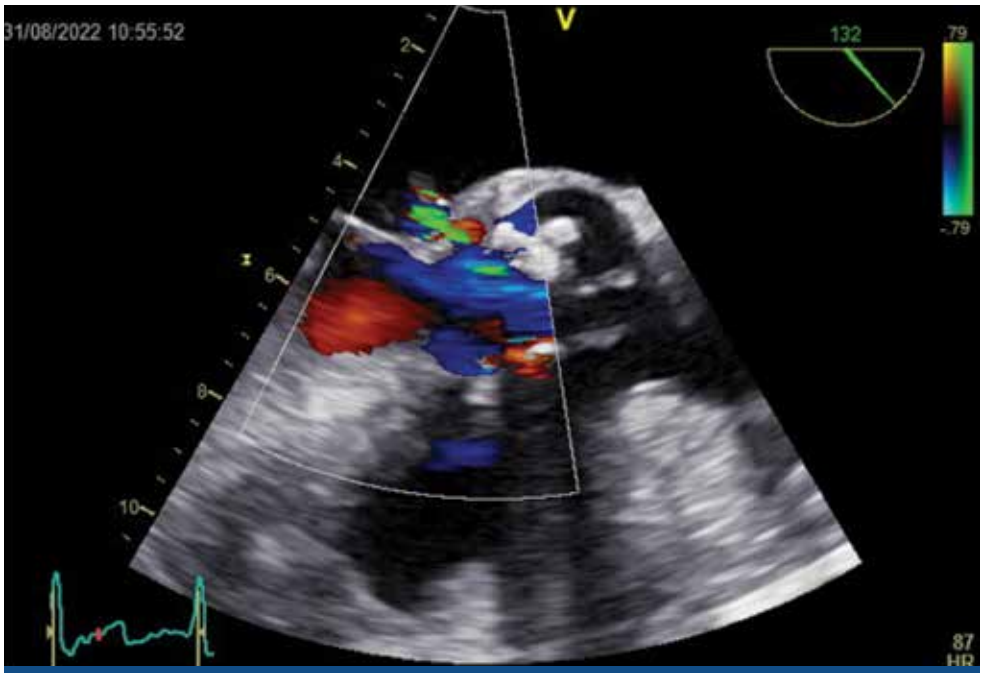

FIGURE 2. Transoesophageal echocardiography. Color Doppler frow from aorta to left atrium.

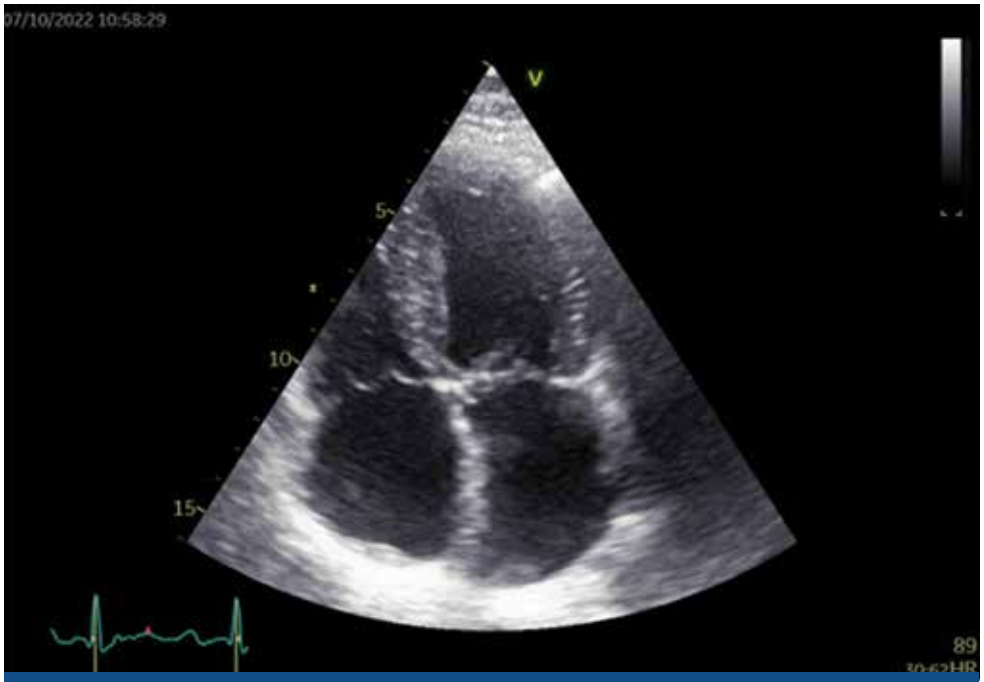

FIGURE 3. Postoperative transthoracic echocardiography: four-chamber view.

Conclusion: TTE and TOE are invaluable for rapid and accurate diagnosis of the anatomic involvement of IE and its extent, leading to appropriate treatment and thus a better prognosis.

LITERATURE

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