

Echocardiography for the diagnosis of infective endocarditis in heart transplant recipients

Mario Udovičić^{1*},
Sandra Jakšić Jurinjak^{1,}
Mira Stipčević^{2,}
Boris Starčević^{1,}
Igor Rudež^{1,}
Vanja Ivanović Mihajlović^{1,}
Hrvoje Falak^{1,}
Danijela Grizelj¹

¹University Hospital Dubrava, Zagreb, Croatia

²Zadar General Hospital, Zadar, Croatia

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***ADDRESS FOR CORRESPONDENCE:** Mario Udovičić, Klinička bolnica Dubrava, Avenija Gojka Šuška 6, HR-10000 Zagreb, Croatia. / Phone: +385-98-477-248 / E-mail: mario.udovicic@gmail.com

ORCID: Mario Udovičić, <https://orcid.org/0000-0001-9912-2179> • Sandra Jakšić Jurinjak, <https://orcid.org/0000-0002-7349-6137> • Mira Stipčević, <https://orcid.org/0000-0003-4351-1102> • Boris Starčević, <https://orcid.org/0000-0002-3090-2772> • Igor Rudež, <https://orcid.org/0000-0002-7735-6721> • Vanja Ivanović Mihajlović, <https://orcid.org/0000-0001-6931-5404> • Hrvoje Falak, <https://orcid.org/0000-0002-6502-683X> • Danijela Grizelj, <https://orcid.org/0000-0002-8298-7974>

Introduction: Post heart transplantation (HTx) infective endocarditis (IE) is unique among endocarditis after solid organ transplantation because it is the transplanted organ that becomes infected. Since 2016 two HTx patients have been successfully treated in University Hospital Dubrava for cardiac allograft infective endocarditis.

Case report: The first one, a 77-year-old male patient, who in 2001 underwent orthotopic HTx due to ischemic cardiomyopathy, and who since 2010 was on hemodialysis due to chronic terminal kidney failure, was admitted in June 2016 due to mitral valve endocarditis (**Figure 1**). The other one was a 29-year-old male patient who in January 2016 had undergone orthotopic heart transplantation due to dilated cardiomyopathy and was diagnosed in June 2017 with tricuspid valve endocarditis (**Figure 2**). Both patients had atypical presentation, and in both patients transthoracic and transesophageal echocardiography were immediately performed revealing valve vegetations and proving crucial for establishing diagnosis. Empirical antibiotic treatment was initiated at once, and the patients were referred to the endocarditis team.

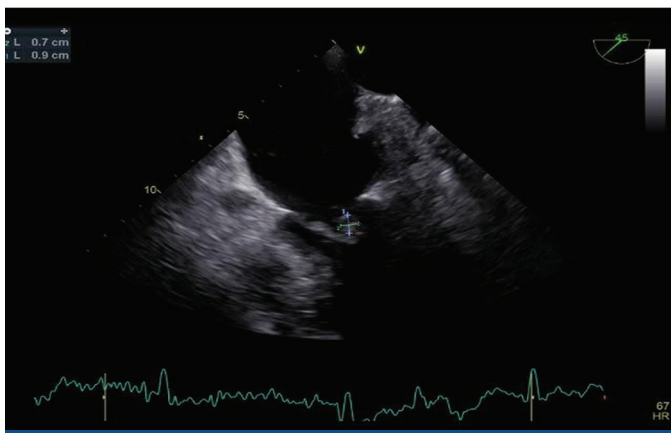


FIGURE 1. Transesophageal echocardiography showing a vegetation on the anterior mitral leaflet.

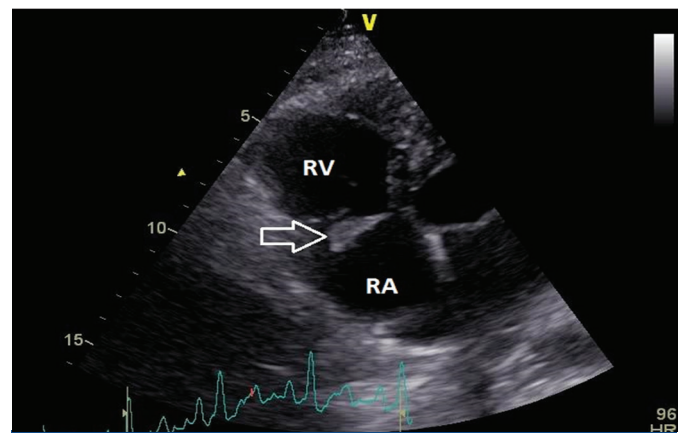


FIGURE 2. Transthoracic ultrasonography showing a large vegetation on the septal leaflet of the tricuspid valve.

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Conclusion: IE is a known, but rare and very often fatal complication of HTx. Frequent central venous catheter access and multiple endomyocardial biopsies appear to predispose to infection¹. The prognosis of post-HTx IE remains poor. Atypical presentation is common in these patients², and therefore a high index of suspicion and low threshold for investigation are appropriate in this group in order to avoid delays in diagnosis³. There are no specific guidelines to diagnostic practice for this particular group, however, echocardiography is the mainstay and essential in diagnosis of endocarditis⁴, and therefore has to be performed at the earliest possible time.

LITERATURE

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