


## A case of conservative treatment of mitral valve endocarditis

 Petra Radić<sup>1\*</sup>,  
 Matias Trbušić<sup>1,2</sup>,  
 Ozren Vinter<sup>1</sup>,  
 Krešimir Kordić<sup>1</sup>,  
 Marko Boban<sup>1</sup>,  
 Ivica Šafradin<sup>3</sup>

<sup>1</sup>Sestre Milosrdnice University Hospital Centre, Zagreb, Croatia

<sup>2</sup>University of Zagreb, School of Medicine, Zagreb, Croatia

<sup>3</sup>University Hospital Centre Zagreb, Zagreb, Croatia

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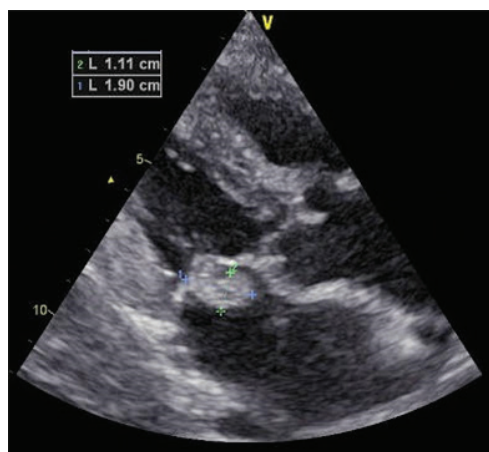
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**\*ADDRESS FOR CORRESPONDENCE:** Petra Radić, Klinička bolnica Sestre milosrdnice, Vinogradska 29, HR-10000 Zagreb, Croatia. / Phone: +385-99-4699-642 / E-mail: [petra.radic108@gmail.com](mailto:petra.radic108@gmail.com)

**ORCID:** Petra Radić, <https://orcid.org/0000-0002-4842-7156> • Matias Trbušić, <https://orcid.org/0000-0001-9428-454X>  
Ozren Vinter, <https://orcid.org/0000-0002-4236-7594> • Krešimir Kordić, <https://orcid.org/0000-0002-9707-6946>  
Marko Boban, <https://orcid.org/0000-0002-6129-575X> • Ivica Šafradin, <https://orcid.org/0000-0003-4519-5940>

**Introduction:** In developed countries, infectious endocarditis (IE) is one of the most common causes of mitral valve failure. It is estimated that the annual prevalence of IE is 3 to 9 cases per 100,000 people, and almost 40% are mitral valve infections<sup>1,2</sup>. Despite the promotion of a surgical approach in the treatment of patients with endocarditis, there are conflicting conclusions on the benefit of surgery for IE and its timing<sup>3</sup>.

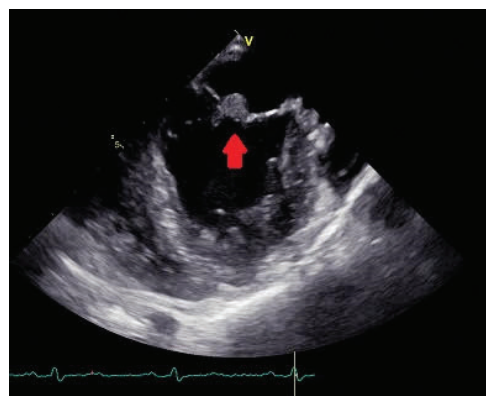
**Case report:** 79-year-old patient was hospitalized with clinical and laboratory findings of sepsis. The patient had autoimmune hemolytic anemia and splenomegaly and was recently hospitalized due to a recurrence of autoimmune hemolytic anemia which was treated with methylprednisolone. Blood cultures came positive on Methicillin-resistant *Staphylococcus aureus*. Transthoracic echocardiography (TTE) revealed large vegetation (18x12 mm) on the posterior leaflet of the mitral valve without signs of valve destruction and severe mitral regurgitation (Figure 1, Figure 2). Since two major and two minor Duke Criteria for definite IE were met, the patient was started on standard antibiotic treatment according to European Society of Cardiology (ESC) Guidelines. Due to newly developed right-sided hemiparesis, an MRI was performed which verified septic emboli and subarachnoid hemorrhage in reabsorption. In such cases, ESC Guidelines propose urgent surgical treatment with I class of recommendation which we decided against due to patient's frailty and reluctance. The dose of methylprednisolone is gradually reduced. Control blood cultures came sterile after the initiation of antibiotics. Control TTE and TEE showed significant almost complete reduction of vegetation size. The patient became afebrile after 6-week administration of intravenous antibiotics with no laboratory or clinical signs of infection. In



**FIGURE 1.** Transthoracic echocardiography image of vegetation on the mitral valve.

consultation with the cardiac surgeon, a strategy of watchful waiting was taken. The patient was transferred to a hospital for prolonged treatment for further rehabilitation.

**Conclusion:** When deciding on the therapeutic approach of infective endocarditis, the fatal consequences and complications of medical treatment should be taken into account in relation to the risks of surgical intervention. Considering recent literature has drawn conflicting conclusions on the benefit of surgery, every patient should be estimated individually.



**FIGURE 2.** Transesophageal echocardiography image of mitral valve endocarditis.

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### LITERATURE

1. Cresti A, Chiavarelli M, Scalese M, Nencioni C, Valentini S, Guerrini F, et al. Epidemiological and mortality trends in infective endocarditis, a 17-year population-based prospective study. *Cardiovasc Diagn Ther.* 2017 Feb;7(1):27-35. <https://doi.org/10.21037/cdt.2016.08.09>
2. Correa de Sa DD, Tleyjeh IM, Anavekar NS, Schultz JC, Thomas JM, Lahr BD, et al. Epidemiological trends of infective endocarditis: a population-based study in Olmsted County, Minnesota. *Mayo Clin Proc.* 2010 May;85(5):422-6. <https://doi.org/10.4065/mcp.2009.0585>
3. Manne MB, Shrestha NK, Lytle BW, Nowicki ER, Blackstone E, Gordon SM, et al. Outcomes after surgical treatment of native and prosthetic valve infective endocarditis. *Ann Thorac Surg.* 2012 Feb;93(2):489-93. <https://doi.org/10.1016/j.athoracsur.2011.10.063>