

Large mass on the mitral valve in a woman in the 28th week of pregnancy

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A 29-year-old woman in the 28th week of her third pregnancy was admitted to the hospital due to a febrile condition lasting 3 months and associated with severe weakness and periodical joint pain. A physical examination showed a tachycardia of 170 bpm and a silent systolic murmur during mitral valve auscultation. Transthoracic echocardiography demonstrated a large, pedunculated, and heterogeneously echogenic mass of 10 × 17 mm in size (FIGURE 1A and 1B), which moved extensively in the distal part of the anterior mitral valve leaflet with moderate eccentric mitral regurgitation, probably connected with abnormal

leaflet coaptation (FIGURE 1C and 1D). The laboratory results revealed anemia (hematocrit, 26.9%; hemoglobin, 9.1 g/dl), normal leukocyte count and procalcitonin levels (8.4 K/μl and 0.19 ng/ml, respectively), increased erythrocyte sedimentation rate (96 mm after 1 hour), and elevated C-reactive protein levels (69 mg/l). Several blood culture tests were performed but did not reveal any microbial growth. However, on the basis of the clinical picture, infective endocarditis was recognized.

The patient was treated with ampicilline (10 g/d) but the treatment was withdrawn after 23 days due to leukopenia. She also received

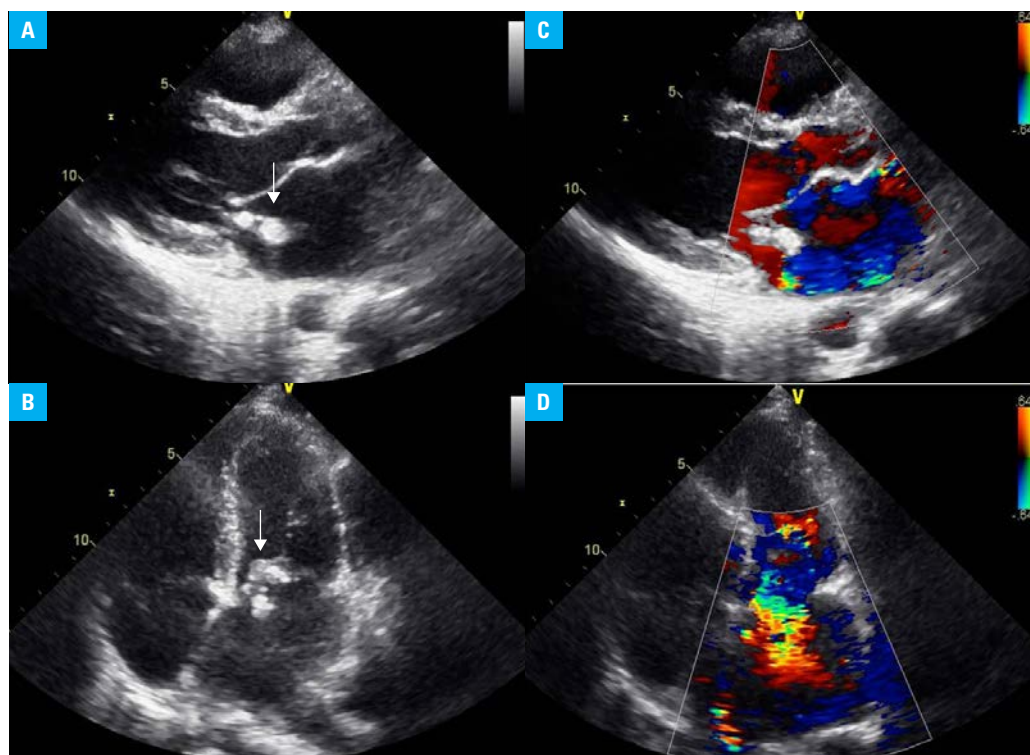


FIGURE 1 Transthoracic echocardiographic images showing a large structure on the anterior mitral valve leaflet in the parasternal axis view (arrow; **A**) and 4-chamber view (arrow; **B**), and moderate eccentric mitral regurgitation in the parasternal axis view (**C**) and 4-chamber view (**D**)

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metoprolol (75 mg/d), intravaginal clotrimazol, and iron preparations. A hastened delivery and surgical treatment were considered; however, the fetal development was normal, and the patient did not give her consent to the intervention. Finally, in the 36th week, a cesarean section was performed and a female infant was born (APGAR score, 10; weight, 3100 g). The patient underwent surgery with implantation of the biological valve 12 days after delivery. The surgery confirmed a large vegetation infiltrating the anterior mitral valve leaflet. Unfortunately, a histological examination was not performed. Although the culture of the excised mass yielded negative results, the patient was administered amikacin and amoxycillin with clavulanic acid for 4 weeks after delivery.

Infective endocarditis during pregnancy is life-threatening both to the mother and child. Its diagnosis in pregnant women may be considerably delayed because of nonspecific clinical signs and physiological valve regurgitations detectable on auscultation. The echocardiographic image of a large pedunculated mass can also be ambiguous, mainly because of the lack of significant valve dysfunction. The mass was differentiated from myxoma, Lambl excrescences, papillary fibroelastoma, and Libman–Sacks lesions. However, the valvular localization of the mass excluded myxoma. Myxomas occur most often in the left atrial chamber (75%) and rarely in the right atrium (18%) and ventricles (7%).¹ Lambl excrescences are smaller and situated along the line of the valvular closure.² The site of the mass in our patient corresponded to papillary fibroelastoma. However, the mean age of patients with fibromas is 60 years.³ Libman–Sacks lesions are typically small (1–4 mm), sessile, and wartlike, although a large mass during pregnancy was also reported.⁴ Magnetic resonance imaging facilitates differential diagnosis of cardiac tumors, but the use of this tool is probably not safe in pregnant women, and its role in the exclusion of the vegetation is questionable.⁵ Considering the clinical presentation and echocardiographic findings, the most likely diagnosis in our patient was infective endocarditis.

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