

Perforation of the mitral valve due to *Brucella* endocarditis as a late complication diagnosed perioperatively

Ameliyat esnasında Brucella endokarditinin geç dönem komplikasyonu olarak bulgularan mitral kapak perforasyonu

Brucellosis shows various clinical signs and can affect different organs (1). Endocarditis is a rare and the most fatal complication of brucellosis and can cause severe cardiac injuries.

A 63 - year- old man was admitted to our hospital with exertional dyspnea. His past medical history was significant for *Brucella* disease that he had experienced 10 years ago with completed antibiotherapy. Our patient was infected directly, because he was a livestock producer. Transthoracic echocardiography showed severe aortic valvular stenosis and mild aortic regurgitation with the valvular calcification. Other valves' functions included minimal mitral regurgitation. His coronary arteriography (CAG) was performed. Coronary arteries were normal. He was consulted by Department of Infectious Diseases. His Coombs *Brucella* Tube agglutination tests were found to be negative declaring that there was no active *Brucella* infection. He underwent operation. After aortotomy, native aortic valve was explored revealing that it was bicuspid in nature with en bloc calcification. Native aortic valve was then resected. Intraoperative examination also revealed perforation (8x7 mm) of the anterior mitral leaflet (Fig. 1). Perforated zone was repaired with native pericardial patch. There was no any destruction in aortic annulus. Aortic valve replacement was performed with 21 mm St Jude mechanical aortic valve using pledgeted Ticron® U- sutures. There didn't grow any microbiological pathogen within the

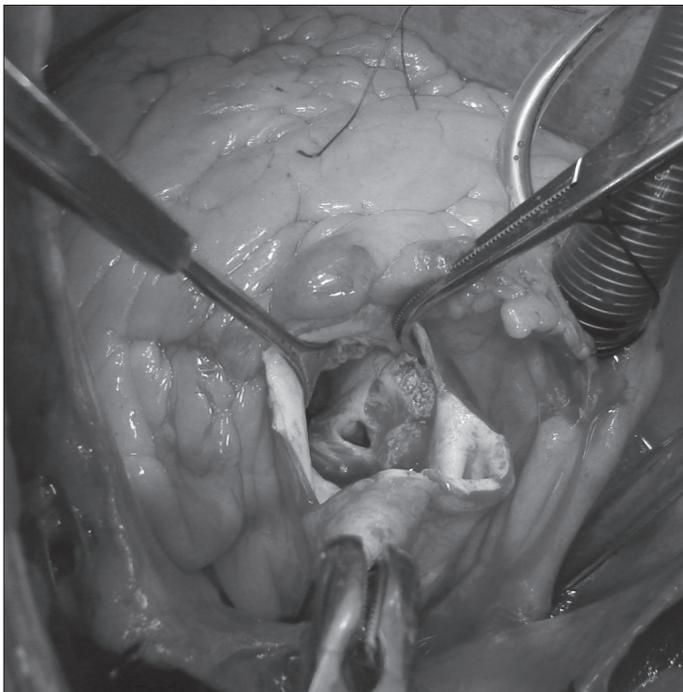


Figure 1. Intraoperative view of perforation zone in the anterior leaflet of the mitral valve

culture media from the specimen obtained intraoperatively. The patient had an uneventful course after surgery and postoperative echocardiography showed no mitral regurgitation (Fig. 2).

Endocarditis due to *Brucella* species can be seen more in the regions where rheumatologic heart diseases are widespread (1). Microorganisms such as *S. Aureus*, *Serratia sp.*, *Pseudomonas sp.* and *Candida sp.*, *Brucella sp.* also destroy the tissues (2). Infective endocarditis injures the valve and causes insufficient flow (3). Situations like leaflet perforation (ranging from small perforations to flail leaflets), rupture of paravalvular abscess, cardiac fistula and leaflet prolapse due to rupture of commissure are responsible for acute valve insufficiency (3, 4). We conclude that surgical approach increases the quality of life for a long period in the late valvular complication of *Brucella* endocarditis.

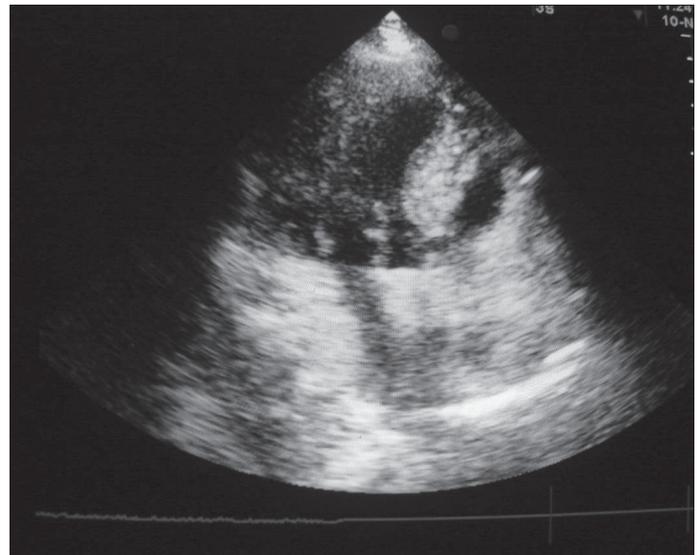


Figure 2. Echocardiographic view of the patch located in the middle zone of the anterior leaflet of the mitral valve and normofunctional mechanical aortic valve

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References

1. Özsoyler I, Yılık L, Bozok S, El S, Emreçan B, Biçeroğlu S, Gürbüz A. *Brucella* endocarditis: the importance of surgical timing after medical treatment (five cases). *Prog Cardiovasc Dis* 2005; 47: 226-9.
2. Store ED, Bory RN, Christakis GT, Brofman GR. Heart valve operations in patients with active infective endocarditis. *Ann Thorac Surg* 1990; 49: 701-5.
3. De Castro S, d'Amati G, Cartoni D, Venditti M, Magni G, Gallo P, et al. Valvular perforation in left-sided infective endocarditis: a prospective echocardiographic evaluation and clinical outcome. *Am Heart J* 1997; 134: 656-64.
4. Oakley CM, Hall RJC. Endocarditis: problems-patients being treated for endocarditis and not doing well. *Heart* 2001; 85: 470-4.

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