

## A case of native triple-valve endocarditis caused by enterococci



### *Enterokokun sebep olduğu nativ üçlü kapak endokarditi*

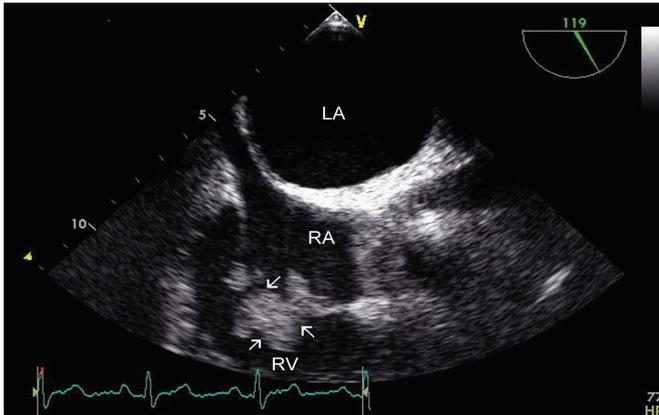
On 30 March 2008, a 78 year-old man presented to our outpatient clinic with complaints of dyspnea, night sweats, malaise, chills and fever. On admission, his body temperature, pulse rate and blood pressure was 40°C, 110 beats/min and 120/80 mmHg respectively. At the physical examination, cardiac auscultation revealed a grade 3/6 pansystolic murmur at the mitral area and left sternal border. He had a medical history of coronary angiography and ureteral catheterization one month ago.

Transthoracic echocardiography demonstrated multiple mobile vegetations on the tricuspid, aortic and mitral valves. The transesophageal echocardiography clearly revealed a 25X12 mm sized mobile vegetation on the tricuspid valve with moderate regurgitation (Fig. 1, 2. Video 1,2. See corresponding video/movie images at [www.anakarder.com](http://www.anakarder.com)) a 5X6 mm sized mobile vegetation on the noncoronary cusp of the aortic valve and a 10X10 mm sized mobile vegetation on right coronary cusp of the aortic

valve with moderate regurgitation (Fig. 3, 4. Video 3, 4. See corresponding video/movie images at [www.anakarder.com](http://www.anakarder.com)). Also a 5X5 mm sized mobile vegetation on the posterior leaflet of the mitral valve with severe regurgitation was detected (Fig. 5, 6. Video 5, 6. See corresponding video/movie images at [www.anakarder.com](http://www.anakarder.com)). Laboratory examination revealed an erythrocyte sedimentation rate of 100 mm/h, a white blood cell count of 26500 cells/mm<sup>3</sup> and 25% hematocrit level. C-reactive protein was 10.5 mg/dl. Enterococcus faecalis was isolated from the three consecutive blood cultures.

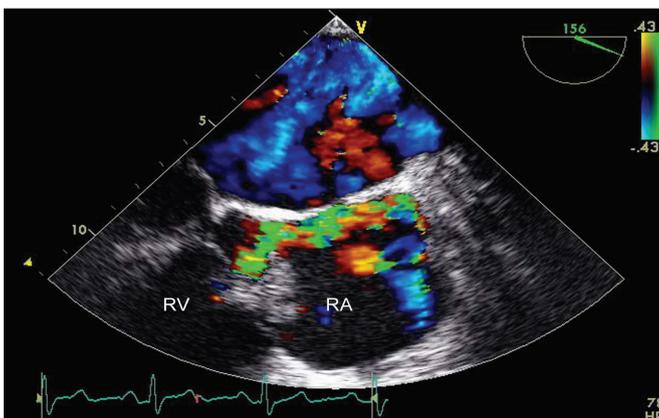
A diagnosis of 'multiple valve endocarditis' was made and the intravenous treatment of vancomycin 2x1 gr/day, and gentamycin 3x60 mg /day was initiated. An improvement in clinical course was achieved during four weeks of hospitalization. Despite recommended surgical approach he refused to have an operation and was discharged on his own decision. On 15 May 2008, the patient admitted again with same clinical complaints. The echocardiographic findings were the same with his past examination. Antibiotic treatment was initiated again. Unfortunately the patient was lost because of cardiopulmonary arrest which developed at the 7th day of hospitalization as he did not accept to have the suggested surgical operation again.

By this case report we aimed to underline an extremely rare case of multivalve endocarditis with mortal course.



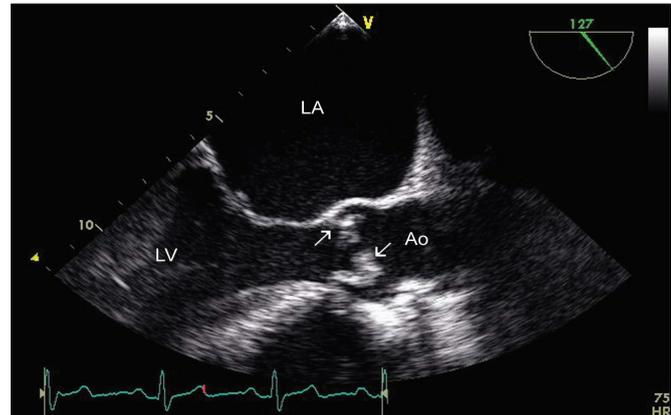
**Figure 1. Transesophageal echocardiography view of a large, mobile vegetation (arrows) on tricuspid valve**

LA- left atrium, RV- right ventricle, RA- right atrium



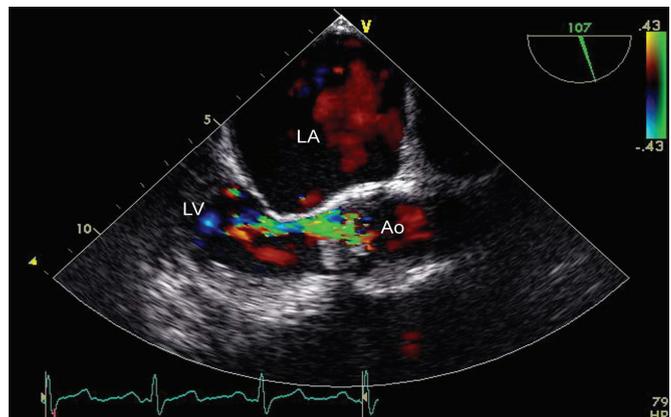
**Figure 2. Transesophageal Doppler echocardiography view of a moderate tricuspid regurgitation**

RV- right ventricle, RA- right atrium



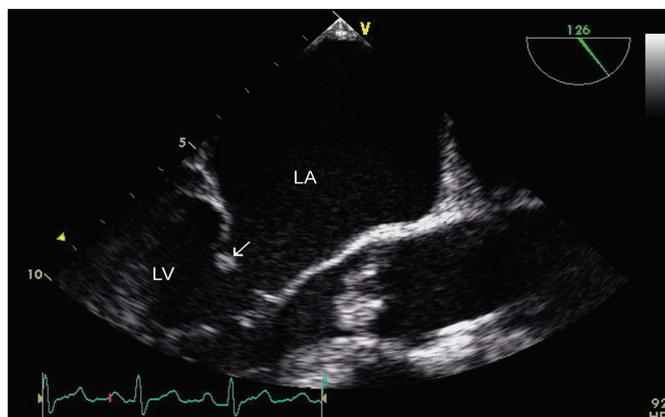
**Figure 3. Transesophageal echocardiography view of a mobile vegetation (arrows) on aortic valve**

LA- left atrium, LV- left ventricle, Ao- Aorta



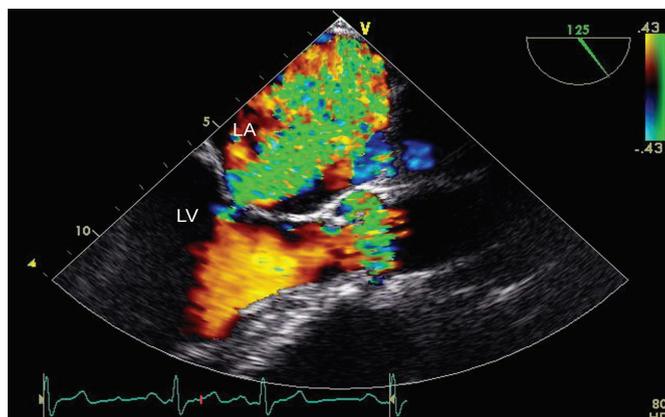
**Figure 4. Transesophageal Doppler echocardiography view of a moderate aortic regurgitation**

LA- left atrium, LV- left ventricle, Ao- Aorta



**Figure 5. Transesophageal echocardiography view of a mobile vegetation (arrow) on mitral valve**

LA- left atrium, LV- left ventricle



**Figure 6. Transesophageal Doppler echocardiography view of a severe mitral regurgitation**

LA- left atrium, LV- left ventricle

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## Isolated right ventricular apical mural endocarditis



### *Sağ ventrikül apeksinde izole mural endokardit*

A right ventricular mass has various etiologies ranging from a thrombus to a tumor and generally a detailed diagnostic work-up is needed.

A 32-year old male with high-grade fever and generalized weakness was consulted at the emergency service because of unknown infection source unresponsive to one-week antibiotic treatment. He was febrile (38.5 C) and had tachycardia (123 beat per minute). His sedimentation rate, C-reactive protein, white blood cell count were 66 mm / hr, 41.3 IU, and 11 000 / mm<sup>3</sup>, respectively. Both echocardiography and computed

tomography showed a mass located in right ventricular apex (28.1x38.2 mm) (Fig. 1. Video 1. See all corresponding video/movie images at www.anakarder.com). We considered this mass as a vegetation based on clinical presentation, and started appropriate antibiotic therapy. However, vegetation size was not changed with the treatment, and hence, the patient was referred to urgent surgery. Histopathological examination of surgical specimen revealed platelet-fibrin deposits and polymorphonuclear leukocyte infiltration without any microorganism. Postoperative course was uneventful.

Although, tricuspid valve involvement is most frequent in right-sided endocarditis, atypical localizations as in our case are also possible. We thought that apical trabeculation of right ventricle creates suitable environment for a vegetation to persist. We have to admit that there should be more in-depth analysis for the exclusion of non-bacterial thrombotic endocarditis (NBTE) or Loeffler endocarditis as possible causes. However, inflammatory reaction observed in the surgical specimen is not expected in NBTE. Moreover, hypereosinophilia was not detected in whole blood analysis which was strong evidence against Loeffler endocarditis.



**Figure 1. Chest computed tomography image of right ventricular mass (arrow)**

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## Visualization of the whole right atrium wall with Tc-99m Sestamibi scintigraphy

### *Tüm sağ atriyum duvarının Tc-99m sestamibi sintigrafisinde görüntülenmesi*

A 45-year-old woman with complaints of angina and palpitations, an atrial septal aneurysm on echocardiography was referred for Tc-99m