

Dissapearing Left Atrial Mass with Complete Embolisation

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ABSTRACT

Infective endocarditis is an inflammatory disease of the endocardium and, at the same time, is a relatively rare disease that is associated with severe complications. Vegetation is rarely located intracardially. Large vegetations in mural endocarditis may mimic tumors, myxoma. Echocardiography is of a critical use in the diagnosis and management of the intracardiac mass. We present a case of a 44-year-old female patient with extensive vegetation in left atrium, with subsequent severe complications, disseminated encephalitis, respiratory failure and an unexpected disappearance of the intracardiac mass at ultrasound after two days.

KEYWORDS

Left atrial mass; Infective endocarditis; Prolapsus valvulae mitralis; Echocardiography

INTRODUCTION

Infective endocarditis is an inflammatory disease of the endocardium and, at the same time, is a relatively rare disease that is associated with severe complications. Vegetation is rarely located intracardially, except for the one in the valves. Large vegetations in mural endocarditis may mimic tumors. The differential diagnosis of intracardiac mass is important to guide the management. Echocardiography is of a critical use in the diagnosis and management of the intracardiac mass. We present a case of a 44-year-old female patient with extensive vegetation within the left atrium, with subsequent severe complications, disseminated cerebellitis, respiratory failure and an unexpected disappearance of the intracardiac mass at ultrasound after two days.

CASE REPORT

A 44-year-old woman was admitted to the hospital because of a recent onset of malaise and fever. She had a history of mild asymptomatic mitral regurgitation. This patient was immunocompetent and had no predisposing risk factors. The disorders preceding the hospitalization were present for five days. Routine laboratory exams showed elevated inflammatory parameters, elevated CRP 141 mg/l, thrombocytopenia Trc 64 × 109/L, neutrophilic leukocytosis, microcytic anemia Hb 100 g/L. The orthopane showed chronic inflammatory processes on the site of the fixed prosthesis. *Staphylococcus Aureus* isolated from the liquor, by microbiological analysis. Also, *Staphylococcus Aureus* was found in the blood cultures. On the same day of the hospitalization,

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transthoracic echocardiography (TTE) revealed a large tumor mass, fluttered across in the cavum of the left atrium and partially protruding through the opening of the mitral valve, with consequent moderate mitral regurgitation, with eccentric jet, and a preserved left ventricular systolic function. At the same time, there were no obvious vegetations on the mitral valve. Transesophageal echocardiography (TEE) showed a large tumor mass of $27 \text{ mm} \times 16 \text{ mm}$ in the cavity of the left atrium (Figure 1), which was attached to the pedicle and was flopping during the cycle in the left ventricle, and repressed the posterior mitral leaflet and resulted in a severe mitral regurgitation. (Figure 2) We speculated that the left atrial mass was an occult bacterial vegetation. On the same day of the hospitalization, the patient's condition became complicated. She was intubated and mechanically ventilated. A computed tomography (CT) of the chest showed a bilateral peripheral consolidation of the pulmonary parenchyma. The magnetic resonance imaging (MR) of the brain using T1-, T2-, showed multiple focal lesions, a micro abscess of cerebral parenchyma in the infra and supratentorial regions of the brain, with numerous micro-hemorrhagic lesions.

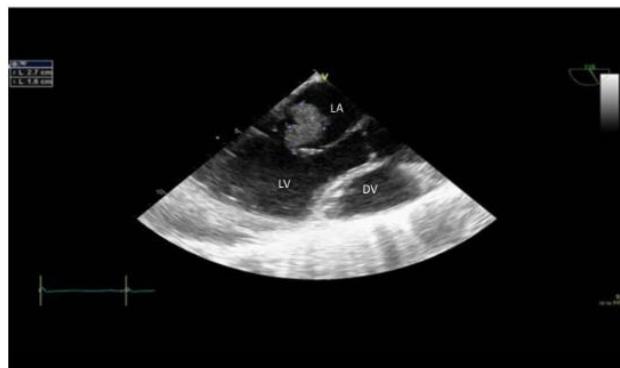


Figure 1: Transthoracic echocardiography showed large tumor mass $27 \text{ mm} \times 16 \text{ mm}$ in cavum of left atrium.

During the control TTE and TEE after two days showed left atrium without tumor mass and severe mitral regurgitation based on the prolapse of the anterior mitral leaflet (Figure 3A & Figure 3B). She was operated on and a mechanical mitral valve was implanted. On the 17th day

of the hospitalization, the patient's condition improved and she was extubated. The control MR of the brain after two months showed the regressive dynamics of the previously described multiple focal lesions of the brain. She had an unremarkable post-operative course and made a complete recovery.

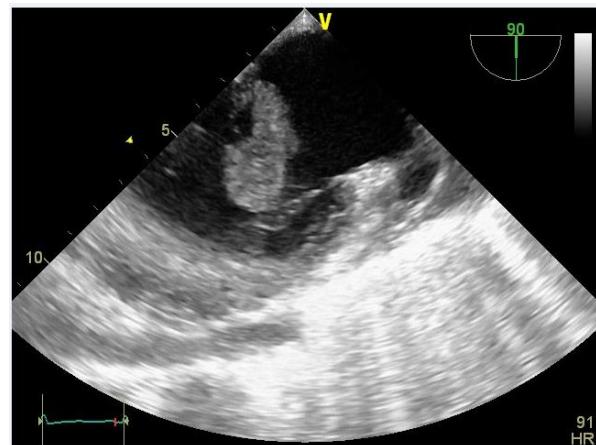


Figure 2: Transesophageal echocardiography revealed a large hyperechoic tumor mass, fluttered across in cavum of left atrium and partially protrude through the opening of the mitral valve.

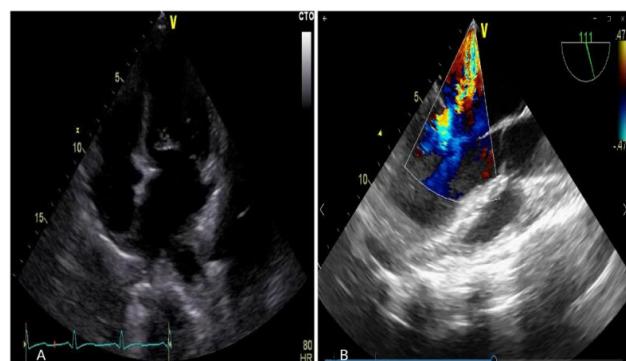


Figure 3: (A) Control transthoracic echocardiography showed empty cavum of the left atrium, without tumor mass in left atrium. (B) Control transesophageal echocardiography showed sever mitral regurgitation based on prolapse of the anterior mitral leaflet.

DISCUSSION

This case presents diagnostic challenging, because we unfortunately didn't have pathological examination the tumor mass, at the time of surgery the left atrial cavity was empty. In the differential diagnosis two entities are considered, mural endocarditis or inflamed myxoma. Based on the findings that the patient had undergone a

TTE three months earlier in which no tumor mass had been determined. That now there are signs of systemic inflammation, as a consequence of the chronic inflammatory process at the site of the dental implant, our team is thought to be about mural endocarditis, with systemic embolization [1]. Only a few cases have been described so far, but the key difference were severe general condition our patient [2]. About 70% of patients' mural endocarditis had predisposing risk factors, including a compromised immune state and an

intravenous drug use [3]. In recent years, implant applications in total have increased and studies have confirmed the development of bacteremia after the surgery [4]. Cardiac imaging modalities, such as TTE and TEE play a critical role in the early recognition and confirmation a primary mural endocarditis.

4. CONFLICT OF INTEREST

The authors declare that they have no competing interests.

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