

Echocardiographic features of pseudoaneurysm of the mitral-aortic intervalvular fibrosa

Mitral ve aort kapakları arası fibroz dokuda gelişen psödoanevrizmanın ekokardiyografik özellikleri

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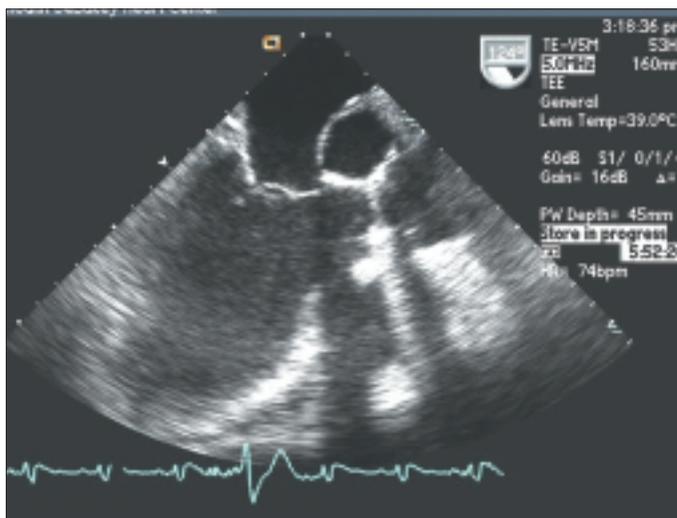


Figure 1. Transesophageal two-dimensional image at an angle of 124°, showing the pseudoaneurysm.

A 44 year-old man was admitted to the emergency department after one day of fever and chills. He underwent aortic valve replacement due to endocarditis in 1997. Four years later, replacement of both aortic and pulmonic valves was performed because of endocarditis. He had a history of cocaine abuse. On the last admission, he was diagnosed with recurrent endocarditis based on clinical and laboratory findings. Transesophageal echocardiography showed a large pseudoaneurysm (2.5x5.1 cm) in the region of mitral-aortic intervalvular fibrosa (Fig. 1). The pseudoaneurysm exhibited a distinct dynamic feature, expanding in early systole and collapsing in diastole (Fig. 2A, B). The maximal cavity area in systole and diastole were 12.6 and 8.7 cm², respectively. Color Doppler echocardiography revealed a communication between the pseudoaneurysm and the left ventricular outflow tract. Bidirectional flow was demonstrated, directed from the ventricle through the pseudoaneurysm in systole and from the pseudoaneurysm to the left ventricular outflow in diastole (Fig. 3A, B). The aortic

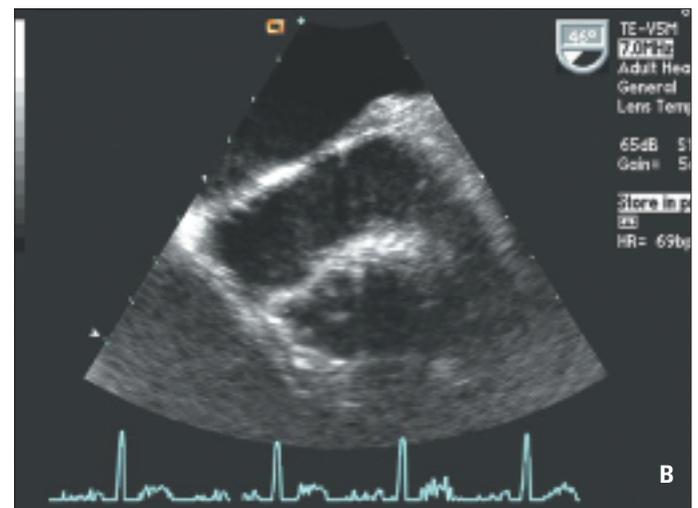
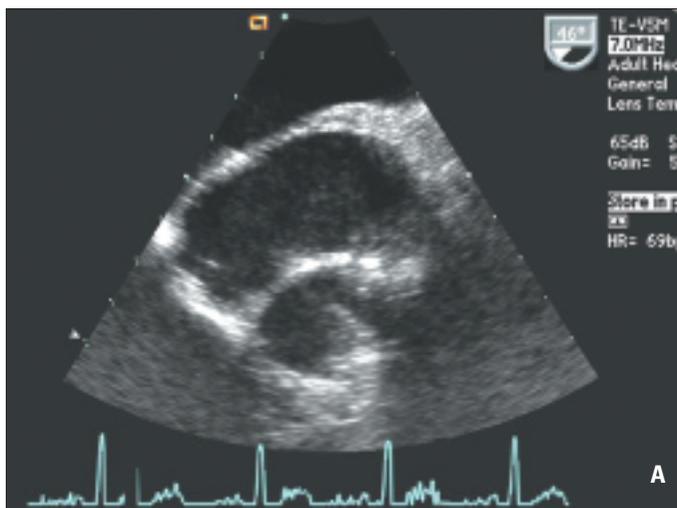


Figure 2. Dynamic feature of the pseudoaneurysm, expanding in systole (A) and collapsing in diastole (B).

prosthesis was functioning normally with a mean gradient of 22 mmHg. Chest CT scan revealed nodular infiltrates in both lungs. The patient subsequently developed respiratory distress, hypoxia and hypotension and died because of sepsis.

Involvement of aortic annulus with abscess or pseudoaneurysm is not uncommon in aortic valve endocarditis, par-

ticularly in the presence of a prosthetic valve. Communication of the cavity with the ventricular outflow tract and the pulsatility of the cavity during cardiac cycle are features differentiating pseudoaneurysms from ring abscesses. Because of the risk of possible rupture of the pseudoaneurysm into the pericardium, surgical correction generally is recommended.

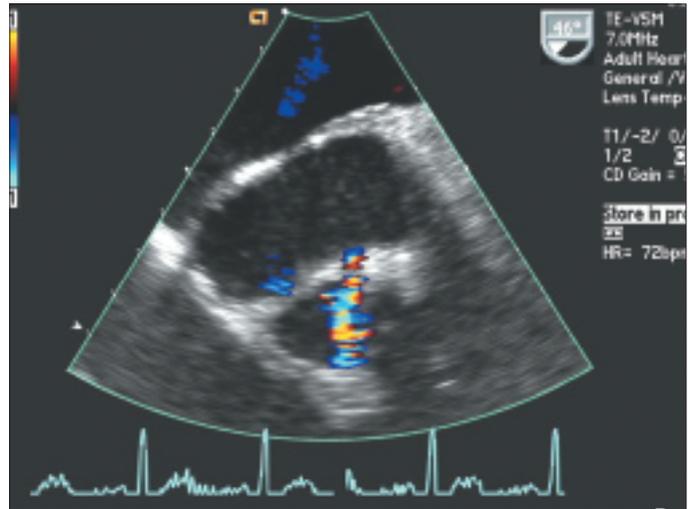
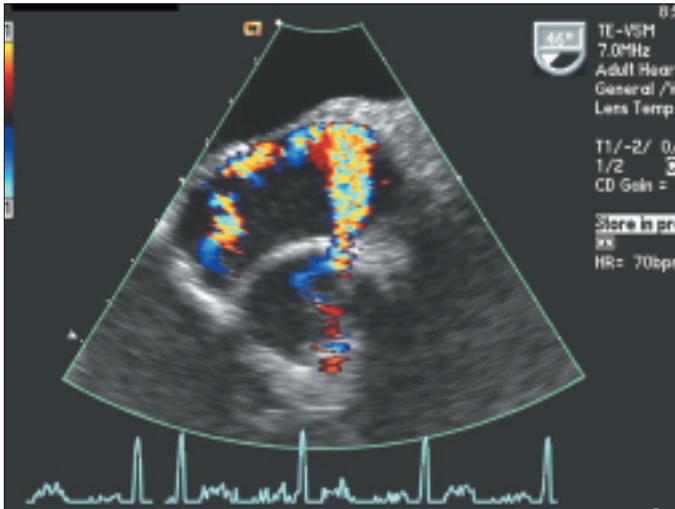


Figure 3. Transesophageal color Doppler images showing bidirectional flow. During systole, blood flows into the pseudoaneurysm (A) and in diastole into the aorta (B).