OLGU SUNUMU CASE REPORT

Bacterial Endocarditis Involving Discrete Subaortic Membrane: Case Report

Diskret Aort Membranını Tutan Bakteriyel Endokardit

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ABSTRACT A 19-year-old male patient was admitted with high fever. Transthoracic echocardiography showed a mobile vegetation on discrete subaortic membrane. Transesophageal echocardiography demonstrated discrete subaortic membrane and fibrillary vegetation on membrane, bicuspid aortic valve and severe aortic regurgitation. Blood cultures revealed methicillin-resistant *Staphylococcus aureus.* We report a patient with bacterial endocarditis involving discrete aortic membrane.

Key Words: Endocarditis; discrete subaortic stenosis

ÖZET 19 yaşında bir erkek hasta yüksek ateş ile kliniğimize müracaat etti. Transtorasik ekokardiyografide diskret subaortik membran üzerinde hareketli bir vejetasyon tesbit edildi.Transözefagial ekokardiyografide diskret subaortik membran ve membran üzerinde vajetasyon, biküspit aort kapağı ve şiddetli aort yetersizliği tespit edildi. Kan kültürlerinde metisiline rezistans S*taphylococcus aureus* üredi. Biz bu makalede diskret aort membranını tutan bakteriel endokarditli bir hastayı sunduk.

Anahtar Kelimeler: Endokardit; diskret subaortik stenoz

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Discrete membranous subaortic stenosis is a rare cause of left ventricular outflow obstruction, and is reported to comprise between 8 and 30% of patients with congenital obstruction of left ventricular outflow tract.[1] A high incidence of infective endocarditis has been previously reported,[2] although this was not the case in a recent large series. We report a patient with bacterial endocarditis involving discrete aortic membrane

CASE REPORT

A-19-year old man was admitted to our hospital because of high fever. Physical examination revealed a heart rate of 90 beats/min and a blood pressure of 100/70 mm Hg. On auscultation, a 3/6 diastolic murmur was heard at the left sternal border. Electrocardiography revealed normal sinus rhythm. Chest x-ray showed cardiomegaly. Two dimensional echocardiographic examination revealed normal left ventricular function and increased left ventricular size, and a mobile vegetation on fibrous membrane attached the interven-

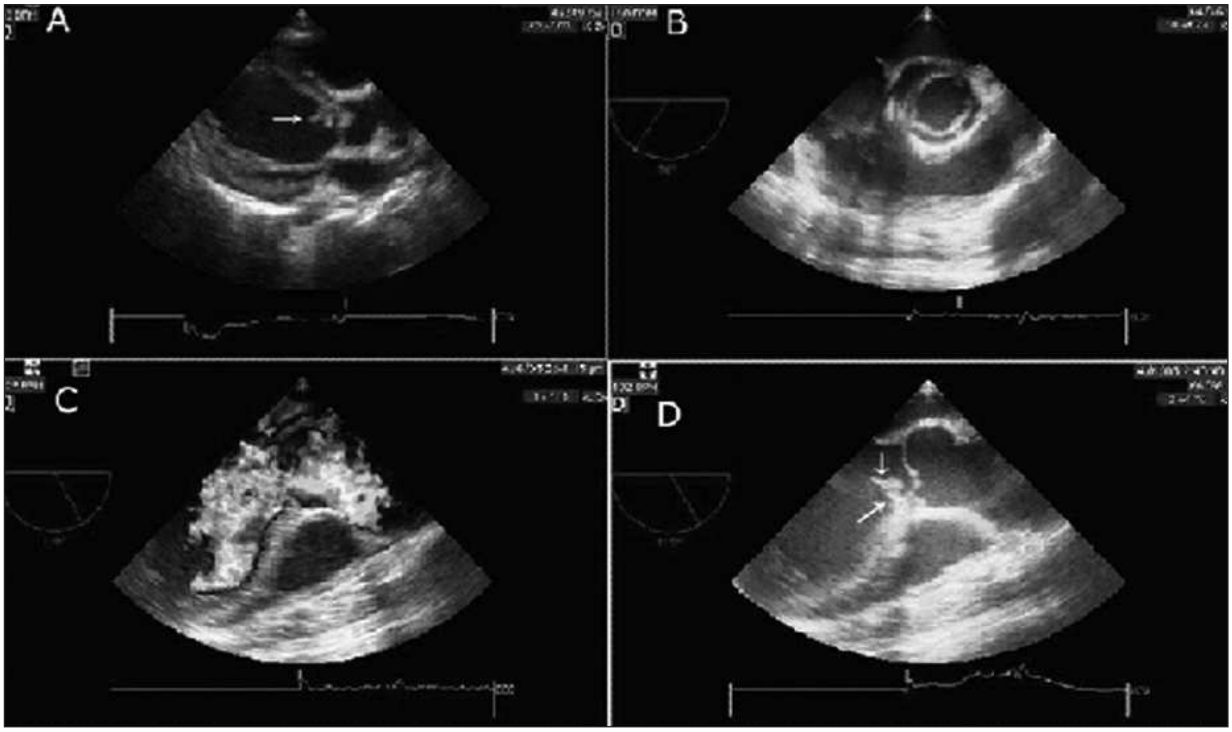

FIGURE 1 a) Transthoracic echocardiography showed a mobile vegetation (arrow) on fibrous membrane attached the interventricular septum at left ventricular outflow tract b) TEE short axis view at the level of the aortic valve demonstrated bicuspid aortic valves. c) TEE long axis view at the level of the aortic valve showed severe aortic regurgitation, d) and, TEE confirmed discrete aortic membrane and a mobile vegetatiton at left ventricular outflow tract (arrows).

tricular septum on the left ventricular outflow tract (LVOT) (Figure 1 A). On doppler examination, there was 40 mmHg pressure gradient in systole at the LVOT. Transesophageal echocardiography revealed bicuspid aortic valves and a severe aortic ragurgitation, discrete membrane on LVOT and fibrillary vegetation on membrane was also detected (Figure 1 B, C, D). Blood cultures revealed methicillin-resistant *Staphylococcus aureus*. After antibiotic treatment for six weeks, patient was referred for surgery.

DISCUSSION

Discrete subaortic stenosis is a progresive obstruction of left ventricular outflow tract resulting in the development of aortic regurgitation in the course of time.[3] Early intervention is therefore recommended, even in asymptomatic patients.[4] In addition, bacteriel endocarditis has been considered an important risk in the setting of subaortic stenosis in previously literatures (12-14%).[3,5] In a novel study, Rohlicek et al. showed that subacute bacteriel endocarditis was not diagnosed in any patient during the study period. This included 249 patients years of followup without any surgical intervention.[6]

As suggested by Lupinetti et al. criteria for surgery in these patients have been a gradient of ≥ 30 mmHg, or progression of left ventricular hypertrophy or new aortic insufficiency, regardless of the gradient,[7] and a coexisting cardiac defect that requires surgical correction.[8]

Endocarditis is now a rare complication of discrete subaortic membrane due to the widespread use of antibiotics for prophylaxis.[9] Resection of membrane was also hoped that this would reduce the risk of endocarditis.[8] Antibiotic prophylaxis for endocarditis is required.[9] The aortic valve always remains a potential site for development of endocarditis in patients with subaortic stenosis (SAS) due to valve thickening from the jet flow toward valve.[10]

This case demonstrates that infective endocarditis is still a potential risk in patients with subaortic membrane. Surgery should be performed, even in asymptomatic patients.

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