Bacterial Endocarditis Involving Discrete Subaortic Membrane: Case Report

Diskret Aort Membranını Tutan Bakteriyel Endokardit

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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-
triangular 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 regurgitation, 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 progressive obstruction of left ventricular outflow tract resulting in the development of aortic regurgitation in the course of time. Early intervention is therefore recommended, even in asymptomatic patients. In addition, bacteriel endocarditis has been considered an important risk in the setting of subaortic stenosis in previously literatures (12-14%). 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.

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, and a coexisting cardiac defect that requires surgical correction.

Endocarditis is now a rare complication of discrete subaortic membrane due to the widespread use of antibiotics for prophylaxis. Resection of membrane was also hoped that this would reduce the risk of endocarditis. Antibiotic prophylaxis for endocarditis is required. 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.

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


