

## Discrete subaortic membrane complicated by infective endocarditis, aortic pseudoaneurysm, and acute severe aortic regurgitation

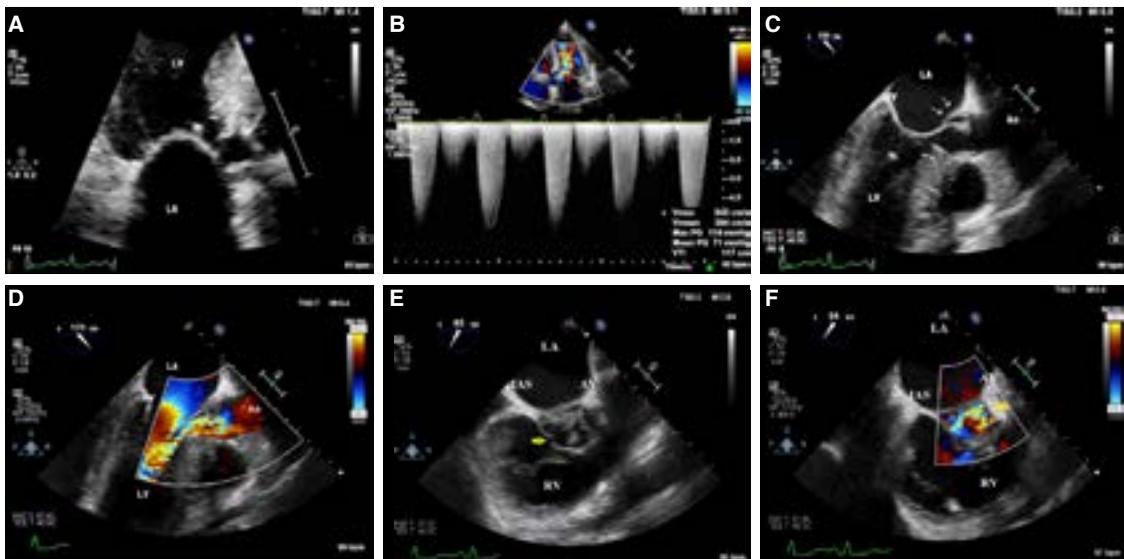
### Enfektif endokardit, aortik psödoanevrizma ve akut ileri aort yetersizliği ile komplike olan subaortik diskret membran

- Münevver Sarı
- Cemalettin Yılmaz
- Alev Kılıçgedik
- Gökhan Kahveci
- Selçuk Pala

Department of Cardiology,  
University of Health Sciences  
Kartal Koşuyolu Training  
and Research Hospital,  
İstanbul, Turkey

A 47-year-old female without a previous history of predisposing risk factors for infective endocarditis presented with progressive dyspnea ongoing for 3 weeks. A physical examination revealed normal vital signs, a continuous murmur at the aortic foci, and bilateral rales. Electrocardiography indicated sinus tachycardia (121 bpm) and signs of left ventricular (LV) hypertrophy. Transthoracic echocardiography demonstrated subvalvular severe aortic stenosis (max/mean transaortic gradient: 119/71 mm Hg) due to a discrete subaortic membrane (Fig. A, B), severe aortic regurgitation (AR), severe LV hypertrophy with preserved LV systolic function, and moderate secondary mitral and tricuspid regurgitation. Laboratory tests showed leukocytosis (10.200/

mm<sup>3</sup>, 95.7% neutrophils, anemia [9.1 g/dL]), progressive impairment in renal function (serum creatinine 0.71–1.83 mg/dL), and increased serum C-reactive protein (59.2–51.6 mg/L) and high-sensitive cardiac troponin T (0.117–0.135 ng/mL) values. A furosemide infusion was cautiously administered. Transesophageal echocardiography revealed a peri-annular invasion and pseudoaneurysm on the aortic valve and severe AR with a discrete subaortic membrane (Fig. C–F). Surgical intervention was recommended. Three sets of blood cultures were taken. Parenteral ceftriaxone and ampicillin-sulbactam treatment was initiated by an infectious disease specialist. The patient's fever reached 38.6°C on the second day. The patient died 2 days after presentation. *Staphylococcus saprophyticus* was isolated from her blood culture. *Staphylococcus saprophyticus* is a coagulase-negative *Staphylococcus* infrequently reported as a pathogen of native valve endocarditis and is most often associated with urinary tract infection. It should be kept in mind that infective endocarditis in a patient with a discrete subaortic membrane may be a cause of sub(acute) severe AR, which may lead to clinical deterioration and death.



**Figures**– Transthoracic echocardiography showing (A) discrete subaortic membrane below the aortic valve in apical 3-chamber view (arrow), (B) Gradient of 119/71 mm Hg between left ventricle and aorta observed in apical 5-chamber view. Transesophageal echocardiography mid-esophageal long axis view (131°) revealed the (C) discrete subaortic membrane and (D) severe aortic valvular regurgitation during early diastole. Transesophageal echocardiography mid-esophageal short axis view (40-60°) revealed (E) peri-annular invasion, pseudoaneurysm, and damaged aortic valve, (F) which was confirmed with color Doppler imaging. LA: Left atrium; LV: Left ventricle; MV: Mitral valve; Ao: Aorta; AV: Aortic valve; IAS: Interatrial septum; RV: Right ventricle.