Intracardiac fistula in a patient with prosthetic valve endocarditis

Prostetik kapak endokarditi olan bir olguda intrakardiyak fistül

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Department of Cardiology, Kartal Koşuyolu Heart and Research Hospital, İstanbul A 44-year-old female patient presented with fever, dyspnea, and pretibial edema 18 months after prosthetic aortic and mitral valve replacement. Transthoracic echocardiography (TTE) showed vegetations on the aortic and mitral valves and moderate paravalvular aortic regurgitation between the right and noncoronary cusps, but no abscess formation. A probable pannus formation was also noted around the prosthetic mitral valve, along with moderate mitral ste-

nosis. Blood cultures were positive for methicillin-sensitive *Staphylococcus aureus*, and antibiotherapy (vancomycin 30 mg/kg/day and gentamicin 3 mg/kg/day) was started. On the third day of treatment, the patient developed pulmonary edema and bedside TTE revealed severe aortic regurgitation. Thus, emergency redo aortic and mitral valve replacement was performed. She was extubated on the first postoperative day, and her hemodynamic status was stable. Echocardiographic examination showed both prosthetic valves functioning normally. However, her clinical status deteriorated suddenly on the sixth postoperative day, resulting in cardiogenic shock. On TTE, a flow jet resembling



a tricuspid regurgitant jet was seen in the right atrium, but its origin was not clearly defined (Fig. A). Transesophageal echocardiography was performed, which showed aneurysmatic enlargement of the noncoronary sinus. A left-toright shunt between the aorta and right atrium was noted (Fig. B, C; supplementary video file^{*}). Despite an emergency operation and repair of the fistula with a synthetic graft, the patient died in the early postoperative period.



Figures. (A) Parasternal short-axis color flow image at the aortic valve level showing a jet in the right atrium. (B) Transesophageal echocardiography (short-axis view) showing an echolucent area (white arrow) between the aorta and right atrium. (C) A prominent jet (black arrow) is seen from the aorta into the right atrium. *Supplementary video file associated with this case can be found in the online version. RV: Right ventricle; RA: Right atrium; Ao: Aorta; LA: Left atrium.