

Left ventricular outflow tract to left atrial fistula after aortic valve replacement

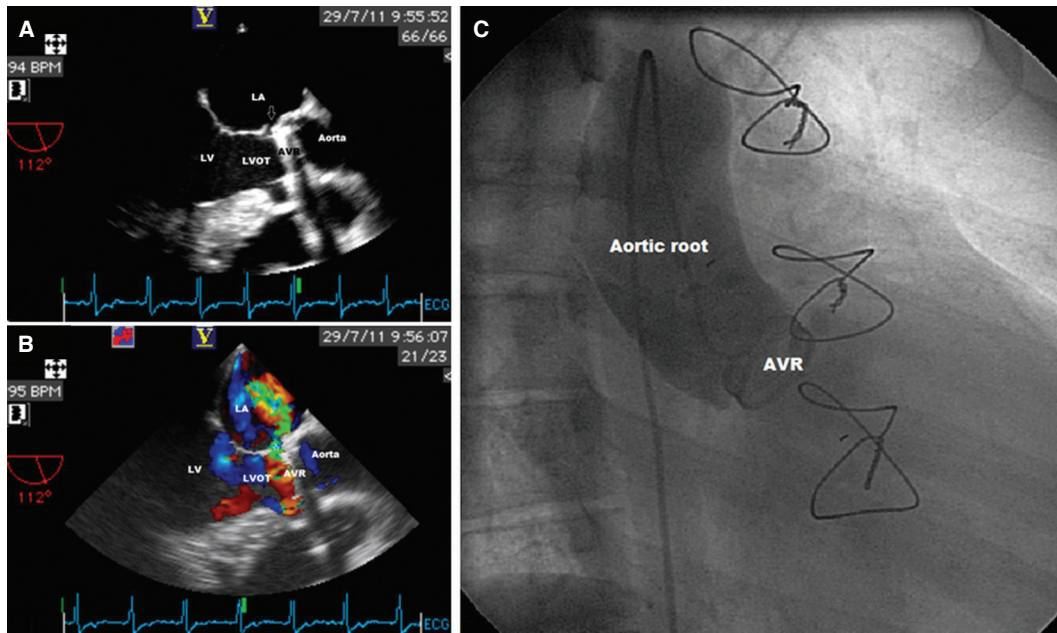
Aort kapak replasmanı sonrası sol ventrikül çıkış yolu ile sol atriyum arasında fistül

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A 16-year-old male underwent aortic valve replacement (AVR) five months ago due to bicuspid aortic valve and symptomatic severe aortic stenosis. During the operation, a 19 mm Regent mechanical valve (St. Jude Medical, Inc., St. Paul, MN, USA) was implanted which required a posterior root enlargement to avoid patient prosthesis mismatch. The perioperative transesophageal echocardiography (TEE) showed only trace aortic regurgitation (AR) with no other abnormal findings. While the patient had been doing well during the postoperative period, he described palpitation episodes for 10 days. He had no fever or other constitutional symptoms. His examination revealed a normal prosthetic valve sound, 2/6° apical systolic murmur, and his other systemic findings were un-

remarkable. Electrocardiography showed normal sinus rhythm (62 bpm). Serum biochemistry and blood count were within normal limits. Transthoracic echocardiography showed a left ventricular (LV) end-diastolic diameter of 56 mm, a LV ejection fraction of 64%, moderate AR and left ventricular outflow tract (LVOT) to left atrial (LA) connection with color Doppler. However, transesophageal echocardiography disclosed that there was an 8 mm defect between LVOT and LA (Fig. A, supplementary video file 1*). Color Doppler revealed jet flow from LVOT to the left atrium (Fig. B, and supplementary video file 2*). Also, moderate AR was detected. Aortography demonstrated mild AR (Fig. C). Due to these findings, the patient was referred for surgical repair of the LVOT-to-LA defect. Clinically significant cardiac fistulae occur rarely and are typically repaired surgically. The LVOT to LA fistula observed here was likely related to the root enlargement procedure that was performed during the AVR, especially since an incision had been made in the LA wall.



Figures– (A) TEE image in the 120° long-axis plane showing LVOT-to-LA defect. (B) Color Doppler imaging confirmed the connection. (C) Aortography revealed mild AR with no aorto-atrial connection. *Supplementary video files associated with this case can be found in the online version.