

# Severe Left Ventricular Outflow Obstruction Due to the False Reattachment of Chordopapillary Apparatus of Mitral Anterior Leaflet: Original Image

## Mitral Ön Yaprakçık Kordopapiller Apparatusun Yanlış Bağlanması Sonucu Ortaya Çıkan Ciddi Sol Ventrikül Çıkım Yolu Obstrüksiyonu

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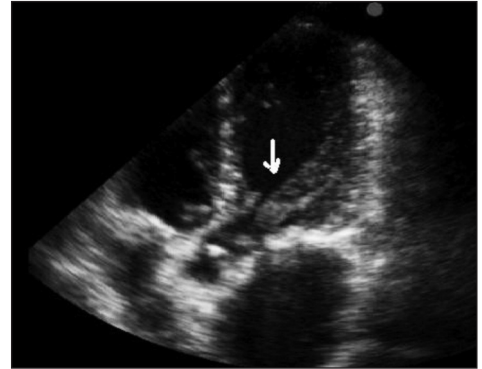
**Key Words:** Mitral valve;  
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**Anahtar Kelimeler:** Mitral kapak;  
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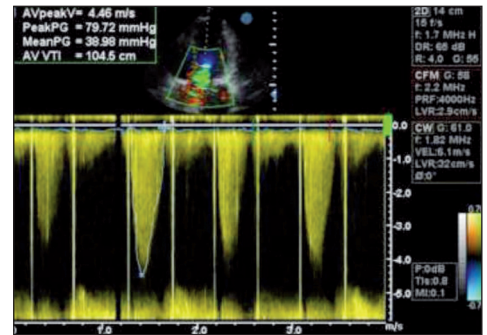
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A 34-year-old woman who had a mitral valve replacement (MVR) was referred with severe dyspnea. She was anticoagulated with warfarin and international normalized ratio values were therapeutic on admission. Cardiopulmonary examinations were unremarkable except for systolic murmur at left sternal border. Transthoracic echo-cardiography (TTE) revealed a meandistolic mitral transvalvular gradient of 6 mm Hg, mitral valve area of 3.2 cm<sup>2</sup>, and elongated anterior mitral chordae tendinae (CT) obstructing the left ventricular outflow tract (LVOT) during systole (Figure 1). Doppler TTE showed severely increased LVOT of 60 mm Hg with normal aortic valves (Figure 2). The patient underwent surgery and the false reattachment of chordopapillary apparatus of mitral anterior leaflet (MAL) was detected and successfully resected (Figure 3). Postoperative TTE revealed disappearance of LVOT obstruction and clinical course of the patient was uneventful (Figure 4). The negative effect of the loss

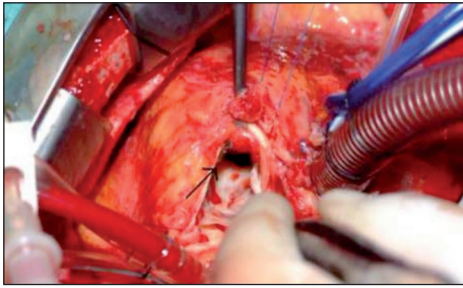


**FIGURE 1:** Apical four chamber view showing false reattachment of chordopapillary apparatus of mitral anterior leaflet obstructing the left ventricular outflow tract.



**FIGURE 2:** Doppler echocardiography view of obstruction at left ventricular outflow tract with peak pressure gradient of 79 mm Hg gradient.

(See color figure at  
<http://www.turkiyeklinikleri.com/journal/cardiovascular-sciences/1306-7656/>)



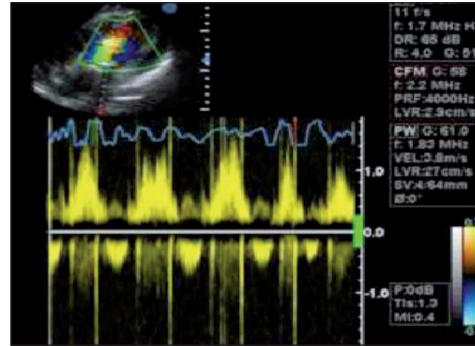
**FIGURE 3:** Intraoperative view of the heart showing the obstruction at left ventricular outflow tract (arrow).

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of annulo-ventricular continuity has been documented by a large number of studies and preservation of the CT and papillary muscles in MVR has been known and a wide variety of techniques have been described for total chordal preservation.<sup>1</sup> These techniques differ primarily in the location where the

MAL and CT are inserted in the mitral annulus. Two primary problems generally encountered with CT preservation during MVR: interference with the prosthesis and LVOT obstruction.<sup>2</sup>



**FIGURE 4:** Postoperative Doppler echocardiography view of left ventricular outflow tract with abolishment of the previous gradient.

(See color figure at

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