

Echocardiographic images of type 4 hypertrophic cardiomyopathy

Tip 4 hipertrofik kardiyomiyoPATinin ekokardiyografik görüntüleri

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Our case was a 20 years old male who was referred to our clinic for the evaluation of exertional dyspnea and atypical chest pain. He denied faint and syncope. In the last one year, there was a progression in his complaints. Physical examination revealed a normal body habitus, 120/80 mmHg of blood pressure and 70 beats/minute of a regular pulse. The jugular venous pressure and carotid pulses were normal. The apical impulse was normal and there was no parasternal lift. Auscultation of the heart revealed 2-3/6 grade mid-systolic murmur at the mesocardiac region. His resting electrocardiogram demonstrated normal sinus rhythm with left ventricular hypertrophy and T wave inversions in the leads V1-V4.

In transthoracic echocardiographic examination, posterior wall hypertrophy was detected in the parasternal long axis view (Fig. 1). The posterior wall was thicker than interventricular septum (18 mm vs. 9.9 mm). At the mitral valve level of the parasternal short axis view, all left ventricular walls except the interventricular septum demonstrated hypertrophy (Fig. 2). Continuous

wave Doppler examination revealed 65 mmHg pressure gradient in the left ventricle (Fig. 3).

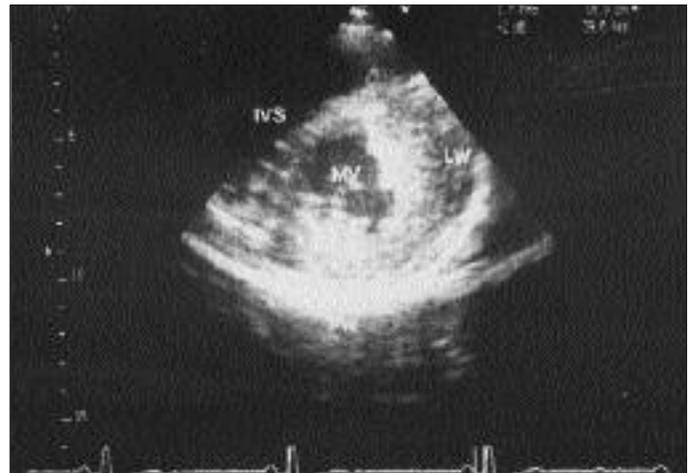


Figure 2. Parasternal short-axis view of left ventricle at mitral level

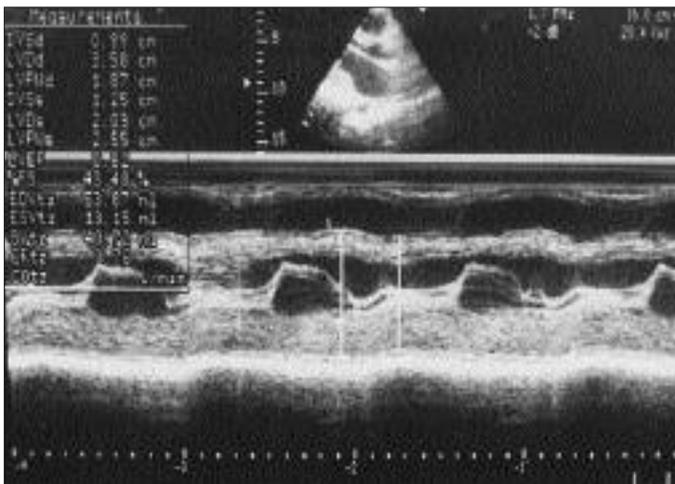


Figure 1. M-mode echocardiographic view of left ventricular posterior wall hypertrophy

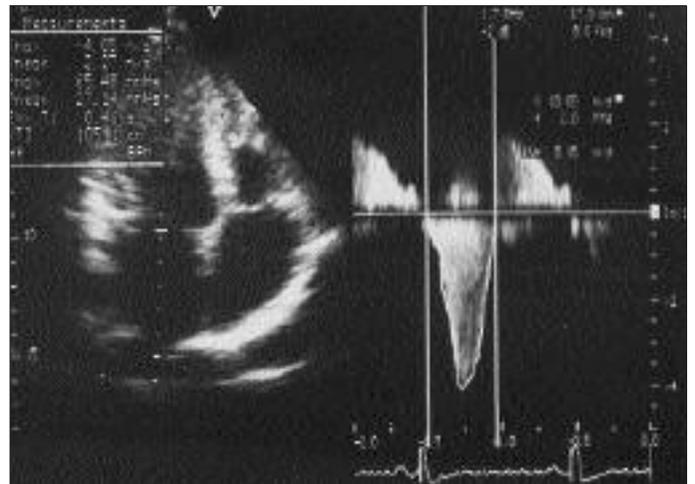


Figure 3. Doppler echocardiography shows left ventricular gradient of 65 mm/Hg

According to the Maron classification (1), these echocardiographic findings were consistent with type 4 hypertrophic cardiomyopathy, which has not been reported for Turkish population.

Maron classification for hypertrophic cardiomyopathy:

Type 1: Hypertrophy is confined to the anterior portion of the ventricular septum. Incidence is 10 % of patients.

Type 2: Hypertrophy involves the anterior and posterior septum. Incidence is 20 % of patients.

Type 3: Hypertrophy involves the anterior and posterior septum as well as the lateral free wall. Incidence is 52 % of patients.

Type 4: Hypertrophy involves left ventricular regions other than the anterior and the posterior septum. Incidence is 18 % of patients.

Kaynaklar

1. Elliot PM, McKenna WJ. Hypertrophic cardiomyopathy. In: Crawford MH, DiMarco JP, editors. Cardiology. 1st Ed. London: Mosby; 2001.p 5.12.6.