

Concomitant diagnosis of a large apical right ventricular thrombus in a newly diagnosed case of arrhythmogenic right ventricular dysplasia

Yeni tanı alan aritmojenik sağ ventrikül displazisi olgusunda eşzamanlı saptanan büyük sağ ventrikül apikal trombüsü

Ahmet Taha Alper

Barış Güngör

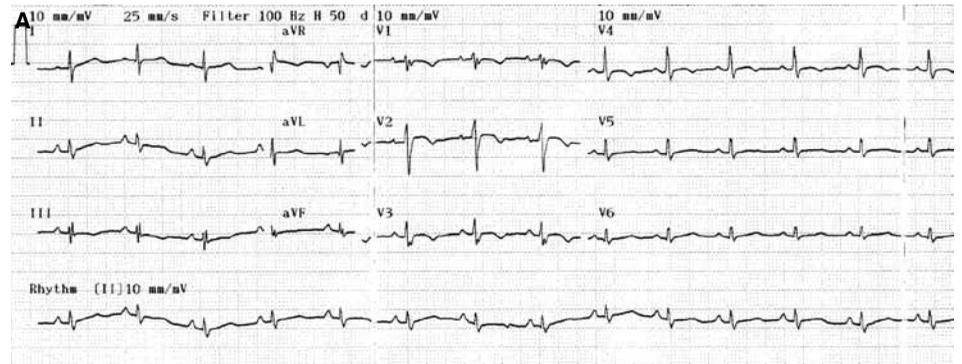
Ahmet Murat

Ceyhan Türkkan

Department of Cardiology

Dr. Siyami Ersek Cardiovascular
and Thoracic Surgery,

Training and Research Hospital,
Istanbul



A previously healthy 14-year-old male presented to our emergency department with the complaint of palpitation of two hours' duration. His 12-lead ECG showed a regular wide QRS tachycardia with left bundle branch block morphology. The initial diagnosis was ventricular tachycardia, and successful cardioversion was performed with intravenous lidocaine infusion. Follow-up ECG showed right bundle branch block with T wave inversions in leads V1 through V4 and presence of epsilon waves in leads V1 and V3. In the right precordial leads, duration of QRS complexes was 120 ms, and the terminal activation duration was 60 ms (Fig. A). Transthoracic echocardiography revealed markedly dilated right ventricle cavity with global hypokinesia and presence of a mobile thrombus measuring 1.9 x 1.8 cm in the right ventricular apex (Fig. B, Video 1*). These findings were compatible with arrhythmogenic right ventricular dysplasia (ARVD) complicated by thrombus formation. Enoxaparin 1mg/kg subcutaneously every 12 hours was initiated, and oral warfarin 5 mg/day was started the following day. The diagnosis was confirmed by magnetic resonance imaging (Fig. C). On the fifth day of hospitalization, follow-up echocardiography showed complete dissolution of the thrombus (Fig. D). An implantable cardioverter defibrillator (ICD) was implanted without any thromboembolic complications, and the patient was discharged on warfarin therapy. Thromboembolic complications are rare



in ARVD cases. Nevertheless, a detailed echocardiographic examination of the right ventricle should be performed in all cases, especially if an intracardiac procedure such as endocardial ICD implantation is planned.

Figures- (A) Surface ECG showing wide QRS complexes with elongated terminal activation duration in leads V1-V3, T wave inversions in leads V1-V4, and epsilon waves in leads V1 and V3. (B) Modified apical 4-chamber view of the echocardiographic examination showing right ventricular dilatation with a large apical thrombus. (C) Magnetic resonance image showing transmural fibrofatty infiltration and thinning of the right ventricular free wall with a large apical thrombus. (D) Modified apical 4-chamber view of the echocardiographic examination showing right ventricular dilatation and absence of thrombi or spontaneous echo contrast in the right ventricle. *Supplementary video file associated with this presentation can be found in the online version of the journal.

