

Cardiac infiltration of leukemia with persistent ST segment elevation

Israrıcı ST segment yükselmeli kardiyak lösemi tutulumu

Çetin Geçmen

Gonca Geçmen*

Muzaffer Kahyaoğlu

Çağatay Önal

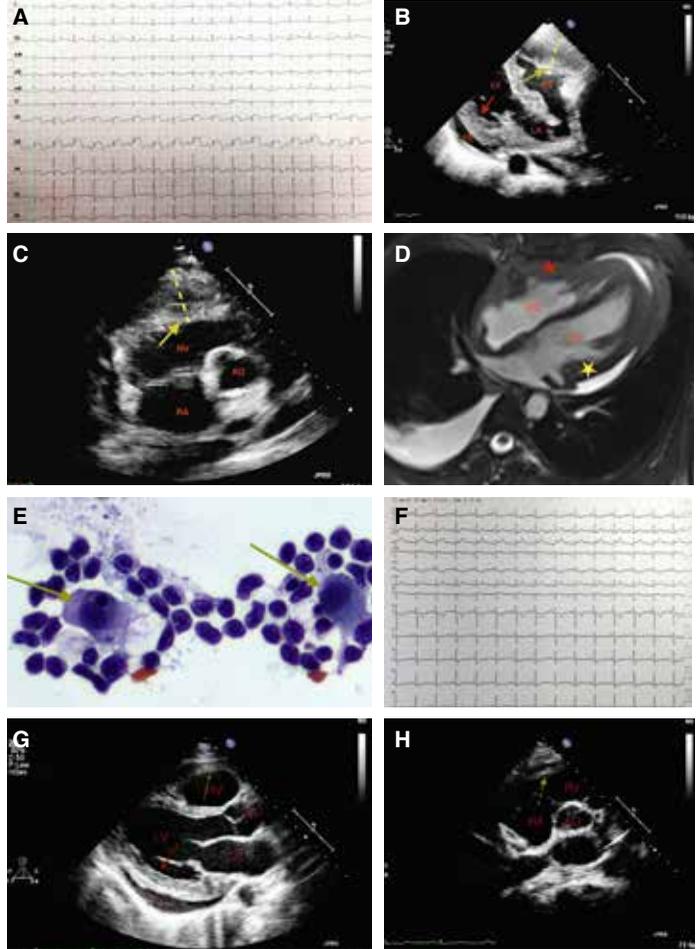
İbrahim Akın İzgi

Department of Cardiology,
Kartal Koşuyolu Heart & Research
Hospital, İstanbul, Turkey

*Department of Pathology,
Dr. Lütfi Kırdar Kartal Training
and Research Hospital, İstanbul,
Turkey

A 34-year-old male patient presented to our clinic with dyspnea. His anamnesis revealed chemotherapy for treatment of T-cell acute lymphoblastic leukemia, leading to remission. Electrocardiography at presentation showed ST segment elevation

in right precordial derivations (V2-3) (Figure A). Transthoracic echocardiographic (TTE) investigation revealed hypertrophy in right ventricular outflow tract (yellow arrow) as well as interventricular septum and posterior wall (red arrow) (Figure B, Video 1, 2*). Parasternal short-axis plane echocardiographic examination at level of aortic valve revealed hypertrophy in right ventricular outflow tract (Figure C). Left ventricle systolic functions were normal and pericardial effusion was present. Magnetic resonance imaging indicated tumoral infiltration of septum and posterior wall (yellow asterisk) and right ventricular free wall (red asterisk) (Figure D). Cytological investigation of pericardial effusion revealed atypical lymphoid cells (arrows) (Figure E). Patient was referred to oncology clinic for treatment. After treatment with chemotherapy, electrocardiography demonstrated resolution of ST segment elevation in right precordial derivations (Figure F). TTE revealed resolution of hypertrophy in right ventricular outflow tract (yellow arrow) as well as interventricular septum and posterior wall (red arrow) (Figure G, Video 3*). Parasternal short-axis plane echocardiographic examination at level of aortic valve revealed resolution of hypertrophy in right ventricular outflow tract (yellow arrow) (Figure H).



Figures– (A) Electrocardiography showed ST segment elevation in right precordial derivations. (B) Transthoracic echocardiographic investigation revealed hypertrophy in right ventricular out-flow tract (yellow arrow) as well as interventricular septum and posterior wall (red arrow). (C) Transthoracic echocardiographic investigation revealed hypertrophy in right ventricular out-flow tract (yellow arrow). (D) Magnetic resonance imaging demonstrated tumoral infiltration of septum and posterior wall (yellow asterisk) and right ventricular free wall (red asterisk). (E) Cytological investigation of pericardial effusion showed atypical lymphoid cells (arrows). (F) Electrocardiography showed resolution of ST segment elevation in right precordial derivations. (G) Transthoracic echocardiographic investigation revealed resolution of hypertrophy in right ventricular free wall (yellow arrow) as well as interventricular septum and posterior wall (red arrow). (H) Transthoracic echocardiographic investigation indicated resolution of hypertrophy in right ventricular outflow tract (yellow arrow). *Supplementary video files associated with this presentation can be found in the online version of the journal.

