Letter to Editor

Acute Myocardial Infarction in a Patient with Hodgkin Lymphoma After ABVD Treatment

ABVD Tedavisi Sonrası Hodgkin Lenfomalı Bir Hastada Akut Miyokard Enfarktüsü

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To the Editor

A 23-year-old male patient was diagnosed with nodular sclerosis classic Hodgkin Lymphoma (NSCHL). He had been diagnosed with lymphadenopathy in his left inguinal region for 6-7 months from the excisional biopsy. The patient had no B symptoms at the time of diagnosis. He had no other known disease or medication in his history but was a smoker. There was a history of nasopharyngeal cancer in his father and uncle in his family history. The patient underwent positron emission tomography (PET). With PET, the patient was staged as Ann Arbor stage IIIA. Echocardiography (ECHO), electrocardiography (ECG), and cardiological examination were requested before chemotherapy was started. The patient's cardiological examination detected no pathology, and his ECHO and ECG were evaluated as normal. The patient's weight was calculated as 95 kg and height as 185 cm. The patient was started on doxorubicin, bleomycin, vinblastine, and dacarbazine (ABVD) chemotherapy by calculating the body surface area according to the corrected body weight. The patient received chemotherapy in the outpatient chemotherapy unit without any problems and was called for control 5 days later for a blood count. However, the patient applied to the emergency department with chest pain 4 days after receiving chemotherapy. The patient was diagnosed with acute myocardial infarction (MI) as a result of the examinations and angiography was performed. The ECG image is shown in Figure 1 when the patient presents to the emergency department with chest pain. A stent was inserted during the angiography procedure. The patient was discharged after the procedure and followed up. Chemotherapy was interrupted for about 1 month. After MI, dosage adjustments were made to the medications in the patient's chemotherapy protocol. The patient continued his cardiology follow-up after MI. At follow-up, the patient had no sequelae. The ejection fraction increased to the normal range. Chemotherapeutic drugs such as anthracyclines are frequently utilized to treat a variety of malignant cancers. Their usage is severely limited by cardiotoxicity, which is classified as type I cardiotoxicity and characterized by cardiomyocyte death leading to permanent harm and a 50% 1-year mortality rate [1, 2]. The most frequent side effect of anthracycline medication is left ventricular systolic dysfunction, which is brought primarily by myocyte destruction and fibrous tissue replacement [3]. The reports that are now available imply that anthracycline-induced cardiac damage develops over time and occurs throughout the exposure. While HF and arrhythmias might appear suddenly (within weeks of exposure), most patients who come months to years after exposure to anthracyclines do so with HF and problems from LV systolic dysfunction (congestion, cardiogenic shock) [4]. Our patient showed some differences from those of the previous reports. First, the patient had received ABVD chemotherapy for the first time and had no cumulative dose accumulation. The patient was 23 years old and had no etiology other than smoking,

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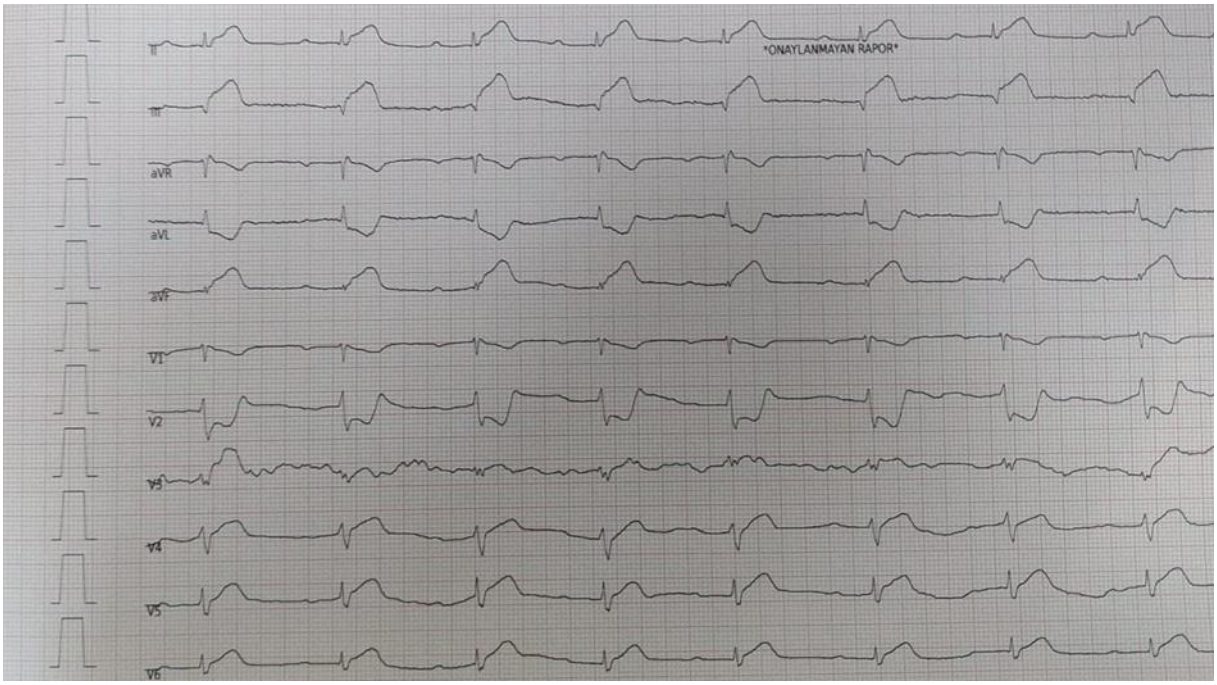

Figure 1. ECG image when the patient presents to the emergency room with chest pain ST elevation in inferior leads D2, D3, and AFV, accompanied by ST depression in V1 and V2, inferior-posterior myocardial infarcts, hyperacute period)

which would create a risk of cardiovascular disease. Secondly, the patient's ECG, ECHO, and cardiological examination performed before the start of chemotherapy were completely normal. As a result, although anthracycline-based chemotherapies often cause advanced cardiotoxicity, it should be kept in mind that they may cause cardiac diseases such as myocardial infarction in the acute period.

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