

A case of Hodgkin's lymphoma which caused pericardial tamponade in a young female patient

Genç bir kadın hastada perikardiyal tamponada neden olan Hodgkin lenfoma olgusu

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Malignant pericardial effusions (MPE) account for approximately 21% of all patients with advanced malignancies. The standard approach to management of MPE has remained controversial. In this article, we present the case of an 18-year-old female who was admitted to our clinic with pericardial tamponade. A cytological examination of the pericardial effusion revealed malignant cells, and the biopsy confirmed the diagnosis of Hodgkin's lymphoma of the nodular sclerosing type.

Key words: Hodgkin's lymphoma; malignant pericardial effusion; pericardiocentesis.

Malignant pericardial effusions (MPEs) occur in approximately 21% of all patients with advanced malignancies and are a sign of advanced malignancy, with a mean survival of only a few months.^[1] We report on an 18-year-old female who was admitted to our clinic with pericardial tamponade. An examination of the effusion revealed malignant cells, and the biopsy confirmed a diagnosis of Hodgkin's disease of the nodular sclerosing type. Malignant etiologies also should be considered in cases with pericardial effusion. An early diagnosis based on a biopsy may be able to determine the malignant disease and offers the potential for a complete cure.

CASE REPORT

An 18-year-old female patient was admitted to our clinic because of dyspnea, which had been present for the previous 10 days and was aggravated at the time of admission. She had fatigue, coughing, and swelling in her neck along with a feeling of discomfort, especially

when leaning forward. Her general condition was poor, with increased respiratory effort and tachycardia. Her blood pressure was 80/60 mmHg, and she had a pulse rate of 112. Auscultation revealed diminished heart sounds and fine crackles in the right lower lung fields. Her teleroentgenogram was suggestive of pericardial and pleural effusions. Pericardiocentesis was performed with the aid of an echocardiogram, and 800 ml of hemorrhagic fluid was drained (Figures 1).

Anahtar sözcükler: Hodgkin lenfoma; malign perikardiyal efüzyon; perikardiyosentez.

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The patient experienced immediate relief from the symptoms, and the blood cultures and the pericardial fluid were negative. A tuberculin dermal test was negative, and a direct examination of the sputum and pericardial fluid revealed the absence of acid-resistant bacteria. A histological examination of the pericardial fluid revealed the presence of malignant cells. Computed tomography (CT) of the thorax showed a mass in the anterior mediastinum located anterior to the heart beginning at 2 cm below the level of the sternal notch and reaching the origin of the pulmonary artery



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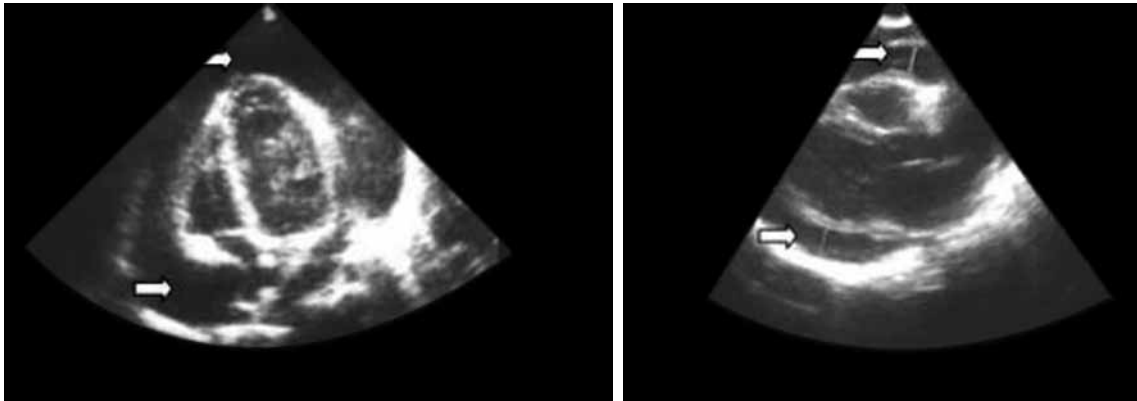


Figure 1. An echocardiogram of the patient showing the pericardial effusion (arrow) that caused cardiac tamponade.

(Figures 2). Also, the right lung parenchyme adjacent to the mass, the great vessels, and the pericardium was invaded by the tumor. Pericardial and bilateral pleural effusion was evident on CT. A biopsy taken via mediastinotomy was consistent with Hodgkin's disease of the nodular sclerosing type.

DISCUSSION

The optimal approach to the management of MPE has remained controversial since the introduction of pericardiocentesis.^[2] Excellent results from open drainage performed through a subxiphoid pericardial window or a thoracotomy have been noted in many surgical series.^[3,4] Pericardiocentesis may be performed to achieve rapid relief of the tamponade in hemodynamically unstable patients and has been effective in 85-93% of the cases. However, this procedure is associated with various complications and has a death rate of 10-25%.^[5]

Furthermore, early recognition with successful treatment of MPE can prolong and improve the quality of life, especially in patients with a disease that is potentially responsive to current therapies. A

wide variety of approaches have been reported to be effective for MPE, including the following: repeat pericardiocentesis, surgical drainage of the pericardium with a pericardial window, indwelling catheter drainage with the pericardial instillation of chemotherapeutic agents such as tetracycline, thiotepa, or bleomycin, a partial or total pericardectomy, a pericardioperitoneal shunt, a thoracoscopy, radiotherapy, and percutaneous balloon pericardiostomy.^[5]

Hodgkin's lymphoma in newly diagnosed patients most commonly presents with mediastinal disease and is unique as a lymphoma in that the neoplastic cell component is associated with an inflammatory host response that may obscure the neoplastic cell populace. Hodgkin's lymphoma is divided into two types: (i) classic Hodgkin's lymphoma which encompasses the spectrum of nodular sclerosing, mixed cellularity, and lymphocyte-depleted forms and (ii) diffuse nodular lymphocyte-predominant Hodgkin's lymphoma (NLPHL).^[6] Hodgkin's lymphoma is also a rare malignancy, with an incidence rate of about 2-4 per 100.000 per year.^[7]

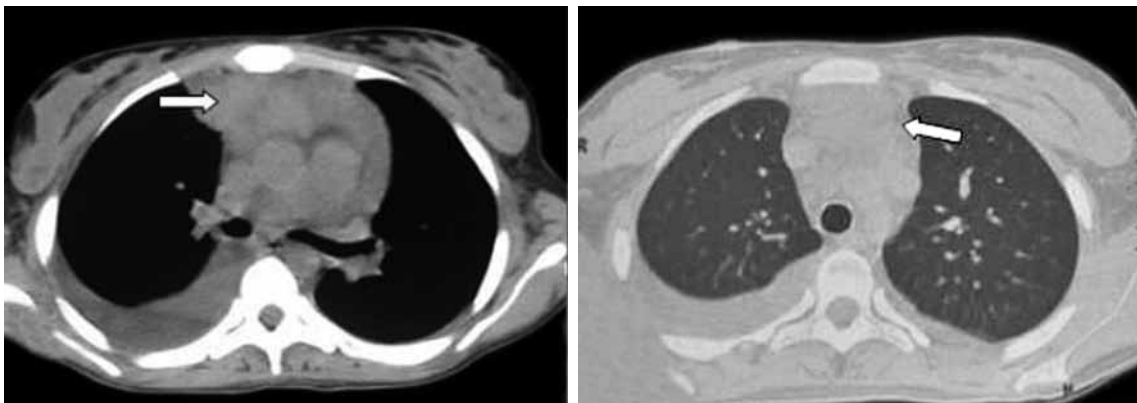


Figure 2. Computed tomography of the patient showing the mediastinal mass (arrow).

The prevalence in women peaks in the third decade and then falls, but in men it remains fairly constant after the third decade of life. Diagnosis of Hodgkin's lymphoma is based on the finding of Hodgkin/Reed-Sternberg cells in an appropriate cellular background of reactive leucocytes and, in some cases, fibrosis. In the developed world, nodular sclerosing classical Hodgkin's lymphoma accounts for over two-thirds of all cases. Lymphocyte-rich classical Hodgkin's lymphoma is a newly defined entity and is closely related to the disorder previously classified as diffuse lymphocyte-predominant Hodgkin's disease.^[7] Lymphocyte-depleted Hodgkin's lymphoma is now rarely diagnosed, and most patients diagnosed with this would now be classified as having nodular sclerosing disease or anaplastic large-cell lymphomas. All subtypes of classical Hodgkin's lymphoma are at present treated in the same way.

The presenting features of this disease are many.^[7] Most patients have asymptomatic lump, typically in the lower neck or supraclavicular region. Mediastinal masses are frequent and are sometimes discovered after routine chest radiography. Patients may complain of chest discomfort with a cough or dyspnea. About 25% of patients have systemic symptoms at presentation, for example fatigue, fever, weight loss, and night sweats. Pruritus and intermittent fevers usually associated with night sweats are classic symptoms of Hodgkin's lymphoma.^[7]

Retter and et al.^[8] reported on a case with MPE and Hodgkin's lymphoma who was receiving her second round of chemotherapy for relapsing lymphoma. However, our patient's presenting symptom was only MPE. Gabrys et al.^[9] reported seven patients with hematologic disorders and MPE, with only one patient having MPE along with Hodgkin's lymphoma. Although pleural effusions are common in patients with lymphoma, pericardial effusions are rare. We could find only three previous reports of a patient with Hodgkin's or non-Hodgkin's lymphoma suffering a massive pericardial effusion.^[8-10]

Due to the rarity of pericardial effusions and Hodgkin's lymphoma, we present our findings with the hope that more research could be conducted on this topic.

Declaration of conflicting interests

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