

Hodgkin's Lymphoma Presenting with Heart Failure

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Abstract

Although the involvement of the heart by malignancy is relatively common, it is unusual for it to be detected premortem. In addition, there is a dearth of data on this subject in the literature. We report a case of Hodgkin's lymphoma presenting with systemic signs and symptoms including abdominal distension, weakness, pallor, chills and fever, generalized edema, hepatosplenomegaly, and generalized lymphadenopathy, as well as signs of heart failure. Echocardiography revealed pericardial effusion, left ventricular hypertrophy, and lucent myocardial lesions. Right cervical lymph node biopsy established the diagnosis of nodular sclerosing type Hodgkin's lymphoma with the involvement of the bone marrow at biopsy. After 14 sessions of chemotherapy, systemic and cardiac abnormalities improved. We believe this is the first case of Hodgkin's lymphoma with cardiac metastasis and heart failure (*Iranian Heart Journal 2008; 9 (3):59 -61*).

Key words: Hodgkin's lymphoma ■ heart failure ■ cardiac metastasis

Cardiac involvement in malignant lymphoma is one of the least investigated subjects in oncology.¹ Cardiac metastases are found in 20-25% of patients with lymphoma,^{2,3} and 9% of all metastatic cardiac tumors are due to lymphoma.^{3,4} Several authors have described primary cardiac lymphomas presenting with pericardial effusion,⁵ arrhythmias, and heart failure.⁶ Echocardiography has been shown to be a sensitive method for the diagnosis of cardiac involvement in patients with lymphoma. Patterns of cardiac involvement vary by the types of lymphoma, suggesting that different pathological types of lymphoma may have different mechanisms of metastasis to the heart. Diffuse myocardial infiltration documented by echocardiography has rarely been described as a presenting feature of this condition,^{7,8} but has been more commonly found at postmortem.⁹

Primary presentation as heart failure in Hodgkin's lymphoma has not been reported previously. We report a case of cardiac involvement by Hodgkin's lymphoma presenting with heart failure and echocardiographic findings.

Case presentation

An 8-year-old girl from Afghanistan presented with a 2-month history of edema, abdominal distension, weakness, pallor, chills and fever, anorexia, and weight loss. Her past medical history was unremarkable. Physical examination showed severe mucosal and conjunctival pallor, periorbital and sacral edema, and abdominal distension. She also had non-tender mobile lymph nodes in her right neck (5 x 5mm), bilateral inguinal area (0.5 x 0.5 cm), and left axillary region (0.7 x 0.7cm), as well as marked hepatosplenomegaly and ascites with shifting dullness.

Received Jul. 3, 2005; Accepted for publication May 2, 2008.

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On cardiac auscultation, a systolic murmur (II/III) was heard; lungs were clear.

Laboratory findings included a very severe anemia with moderate anisopoikilocytosis, Hb 3.2g/dL, ESR 50mm/hr, (nl: <15mm/hr), and positive C-reactive protein. Polymerase chain reaction (PCR) for tuberculosis, blood culture, urine culture, hydatid antibody, Coombs-Wright and 2-ME, direct Coombs, bone marrow culture, and blood smear for malaria and borrelia were negative; and G6PD level was normal.

Chest X-ray showed cardiomegaly and clear lung fields. CT scan of the chest revealed multiple lymphadenopathies in the paratracheal and subcarinal regions.

Abdominal sonography revealed marked hepatosplenomegaly (liver span, 17cm) and two round hypoechoic areas in the hepatoportal space due to adenopathy. On abdominal CT scan (with and without contrast), severe hepatosplenomegaly, a hypodense area in the liver, paraaortic adenopathy, and dilated small bowel loops with thickened walls were reported.

Echocardiographic findings in these patients in the past have shown that pericardial effusion is the most commonly seen abnormality in cardiac metastasis.¹ Early identification of metastatic cardiac involvement can benefit lymphoma patients through careful monitoring of these patients, and managing morbidity and minimizing mortality from complications.

Studies have demonstrated that lymphoma patients with cardiac involvement could be treated successfully.¹⁶⁻¹⁸

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