Tanaffos (2007) 6(1), 71-74

An Unusual Presentation of Hodgkin's Lymphoma as a Chest Wall Abscess in Association with Old Tuberculosis

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ABSTRACT

Chest wall abscess is a very rare presentation of extranodal Hodgkin's lymphoma. Only a few case reports have been found in this regard. Here, we describe a chest wall mass developed in association with tuberculosis in an 82-year-old woman. Radiologic examination revealed two masses outside of chest wall that lead to destructive changes in the manubrium of sternum. The diagnosis of Hodgkin lymphoma was made by open surgical excisional biopsy of the chest wall mass. This is a very unusual extranodal presentation of Hodgkin's lymphoma. ***(Tanaffos 2007; 6(1): 71-74)***

Key words: *Hodgkin's lymphoma, Chest wall mass, Abscess*

INTRODUCTION

Hodgkin's disease usually presents in supradiaphragmatic lymph nodes, with cervical, anterior mediastinal and axillary nodes occurring in decreasing frequency (1). Many cases of malignant non-Hodgkin's lymphoma presenting as a solitary chest wall mass have been reported (2) but, chest wall abscess is a rare presentation of extranodal Hodgkin's lymphoma. Hereby, we present an 82-year old woman with Hodgkin's lymphoma presenting with chest wall mass.

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Received: 9 December 2006

Accepted: 28 February 2007

CASE SUMMARIES

An 82-year-old woman was admitted to Masih Daneshvari Hospital due to a mass in the anterior segment of sternum that had been formed one year earlier. It had been enlarged and fistulized with a purulent discharge from two weeks earlier. She also had a mild dyspnea with productive cough and anorrhexia. She had a history of treated tuberculosis infection 18 years ago. Her vital signs were stable and she did not have fever. On physical exam, the mass was 5x5 cm in size with overlying erythematous skin. It was warm and tender and had a soft texture. She had no positive finding in other organs.

The mass was drained and an incisional biopsy was taken that revealed atypical cells consistent with

malignancy but their origin was not clear. The smear and culture of aspirated fluid were negative for TB, fungi, and bacteria as well.

Spiral neck and thoracic CT-scan was performed that revealed two masses outside of chest wall, one at the middle level of thoracic inlet and the other at the right side of midline. They showed central hypodensity in favour of abscess formation or necrosis (Figure 1 A, B). It lead to destructive changes in the manubrium of sternum and extended into the anterior segment of superior mediastinum. Fibrotic scar and small consolidation were seen in the apico-posterior segment of left upper lobe. No other mass, lesion or lymphadenopathy were seen in the mediastinum and neck.

She had mild anemia with WBC value higher than normal level (10000 µl). Her other laboratory results were normal.

She underwent another biopsy and the diagnosis of Hodgkin's lymphoma was confirmed. Microscopic sections showed skin and subcutaneous tissue with extensive areas of mixed infiltration of scattered individual neoplastic cells in the background of abundant numbers of inflammatory cells. The neoplastic cells were mono-or binucleated, had a high N/C ratio and large vesicular nucleoli. Some of the binucleated neoplastic cells had mirror image nuclei. The inflammatory cells were admixture of predominantly PMNs, some small lymphocytes and eosinophils (Figure 2 A,B,C). On immuno-histochemistry assay the tumoral cells were totally negative for pancytokeratin, S100, 34BE12, LCA, CD15 and CD 34. Most of the neoplastic cells showed membranous and cytoplasmic positivity for CD 30. Some of them were also positive for CD20 and CD79a. Most background small lymphocytes were positive for CD34.

The patient did not receive chemotherapy due to poor performance and died two weeks after diagnosis.

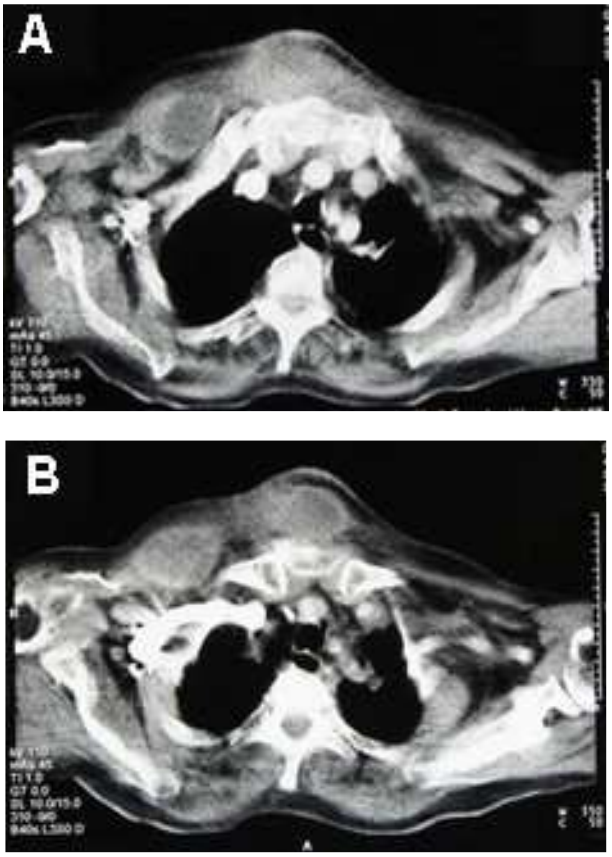
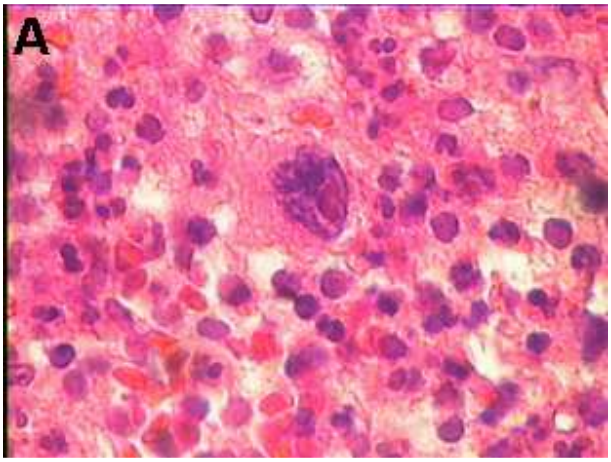


Figure 1 (A, B). CT-Scan showed chest wall abscess formations.



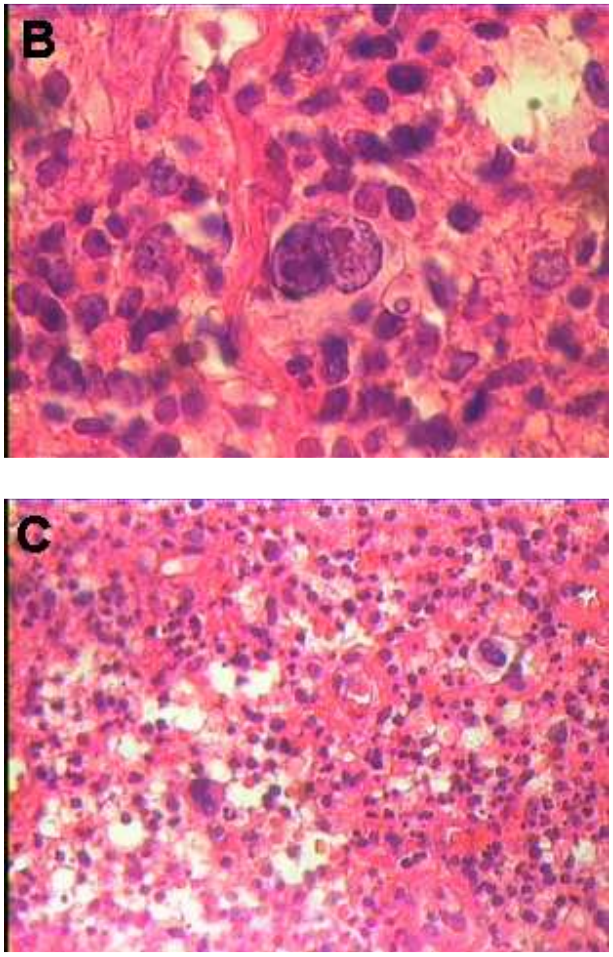


Figure 2 (A, B,C). H&E Characteristic of Reed Sternberg cells and mononuclear Hodgkin's cells in the background of dense inflammatory cells infiltration.

DISCUSSION

This case is particularly interesting because malignant Hodgkin's lymphoma presenting as a chest wall abscess is very rare, especially because it was the initial and the only presentation of lymphoma.

Although there are some reports of non-Hodgkin's lymphoma presenting with chest wall mass but to the best of our knowledge there were only two case reports of Hodgkin's lymphoma with this presentation. Stolk et al reported a 53 year-old woman presented with a tender parasternal mass. Computerized tomography showed a mediastinal mass protruding through the sternum. Cytologic examination of the fluid collected from the mass showed acute inflammation. Tuberculostatics were started. Since the patient did not improve on tuberculostatics, a small supraclavicular lymph node was removed. Histologic examination showed Morbus Hodgkin of nodular sclerosing type. Ultimately, cytologic examination of the fluid from the parasternal mass showed atypical cells. Response to chemotherapy was excellent with complete disappearance of the mass (3). Also Khalbuss et al., reported a 38-year-old man with Hodgkin's lymphoma whose initial presentation was a chest wall abscess. The diagnosis of Hodgkin's lymphoma was suggested by cytological examination of the purulent discharge and was confirmed subsequently by excisional biopsy of cervical lymph node (4).

In view of history of tuberculosis in our patient, it should be emphasized that the relationship between non- Hodgkin's lymphoma and tuberculosis was well studied (5-7), and no correlation was found in this regard.

In our case there was a history and radiological finding of previously treated tuberculosis. The association of tuberculosis and non- Hodgkin's lymphoma has been discussed in numerous articles but in previous case reports of Hodgkin's lymphoma of chest wall, there were no history of tuberculosis.

Association of tuberculosis and Hodgkin's lymphoma, two diseases that are often associated with immune dysfunction raises the possibility of an underlying genetic defect in these cases.

We consider that the current case is exceptionally rare due to the unusual extranodal presentation of primary Hodgkin's lymphoma in soft tissue of the chest wall and also previous history of tuberculosis.

In conclusion, this case report suggests that when a patient presents with a chest wall abscess, fistula or mass, we must consider the possibility of malignant lymphoma (both non- Hodgkin's and Hodgkin's

lymphoma), even if there is no preceding disease, and particularly if there is a history of tuberculosis.

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