

## Non-Hodgkin's Lymphoma of the Pleura Presenting as a Large Thoracoabdominal Mass - A Case Report

Rajul Rastogi, Satish K. Bhargava and Gopesh Mehrotra

Department of Radiology, UCMS & G.T.B. Hospital, Dilshad Garden, Delhi, India

**Abstract :** Primary pleuro-pulmonary non-Hodgkin lymphomas (NH<sub>2</sub>) are very rare tumors, possibly under diagnosed, with a very long, frequently asymptomatic evolution. It has been reported in patients with long standing pyothorax. Primary pleural non-Hodgkin's lymphoma in an immunocompetent patient without a history of chronic pyothorax is extremely rare. To the author's knowledge, very few cases have been described in the literature. A case of primary NHL of the pleura presenting as a large thoracoabdominal mass without a history of previous pyothorax is being reported.

### INTRODUCTION

Primary pleural lymphoma in immunocompetent patients without the setting of chronic pyothorax is very rare. These are asymptomatic tumors following an indolent course presenting with respiratory distress or chest wall mass. Thus, these tumors can reach enormous sizes and may become thoracoabdominal in location. Late in the disease, these tumors can involve the pulmonary parenchyma so that lung cannot be separately identified and the mass is recognized as a pleuropulmonary mass and the biopsy is required to make the definitive diagnosis. Hilar/mediastinal adenopathy is not a feature of this disease. The rarity of the disease has prompted us to report the case.

### CASE REPORT

A 35 years old female presented with a mass in the left upper abdomen and difficulty in breathing. On clinical examination, the patient had thoracoabdominal fullness on left side with shiny skin and prominent and dilated superficial veins. The respiratory movements were reduced on the affected side and the lower limit of the mass could not be reached. On the left lateral chest wall multiple nodular mass could be palpated. The patient had no previous history suggestive of long standing pyothorax on either side. The rest of the medical history and examination is unremarkable.

Laboratory investigations revealed increased ESR and reduced hemoglobin levels. Rest of the laboratory data was within normal limits. Plain radiograph of the chest revealed homogeneously opaque left hemithorax and hyperinflated right lung field with the mediastinal shift (heart and tracheal shadow) to the right side. Bony cage appears normal.

Ultrasound examination of the chest and abdomen revealed a large heteroechoic mass in the chest extending into the left hypochondrium but with the intervening intact left hemidiaphragm, thus pointing towards the thoracic origin of the mass. The abdominal viscera including left kidney, spleen, stomach and pancreas were displaced inferiorly. The mass is seen to extend

superiorly as far as the apex of the lung. At multiple points on the left lateral part of the chest wall, the mass was seen to project through the intercostal space into the subcutaneous planes.

Computed tomographic examination of the chest and abdomen of it revealed a large fairly well defined, heterogeneously but moderately enhancing mass completely occupying the left hemithorax with displacement of the mediastinal structures towards the right side (Fig.1). The left lung was engulfed in the mass. The mass was extending into the left upper abdomen with displacement of the abdominal viscera but with an intact intervening diaphragm (Fig.2). At several sites the mass was seen to extend its pseudopods through the intercostal spaces into the soft tissues of the chest wall. Pressure erosions of some ribs were noted on the bony window settings on the left side. No evidence of mediastinal, right hilar adenopathy was noted.

The histopathological examination revealed large cell type of non-Hodgkin's lymphoma of the pleura.

### DISCUSSION

Both Hodgkin's and non-Hodgkin's lymphomas can involve the pleura. The tumor is seldom the solitary at initial presentation<sup>1,2</sup>, mediastinal nodal and sometimes pulmonary parenchymal involvement.

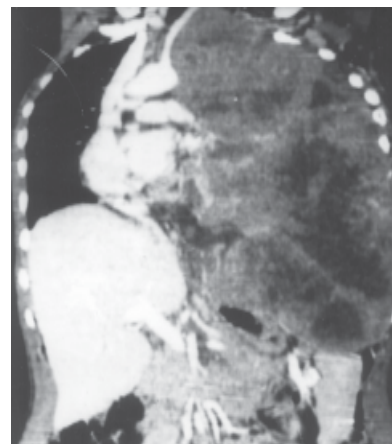


Fig.1 : Coronal MPR CT scan of the thorax reveals a large, heterogeneous, mass in the left hemithorax with mediastinal shift to the right side with complete loss of pulmonary parenchyma

Three (3) are often present patients with non-Hodgkin's lymphoma (NHL) involving the lung or chest wall following a long-standing empyema were reported by Kamesaki H. et al<sup>3</sup>. All patients had tuberculous pleuritis or received artificial pneumothorax for pulmonary tuberculosis 30 years or more previously. The NHL of these patients developed in or close to the thickened pleura. Histological examination showed diffuse large cell type (LSG classification) in all cases. Non-Hodgkin's lymphoma of the pleural cavity with long-standing pyothorax was described by Iuchi K, et al<sup>4</sup>. This study suggested a close relation between a preceding chronic tuberculous pyothorax and the development of non-Hodgkin's lymphoma (NHL) in the pleural cavity. Primary pleuro-pulmonary lymphomas are very rare and pose<sup>5</sup>.

Very few cases of NHL of pleura without the history of chronic empyema has been described in the literature<sup>6,7</sup>. Radiological features of primary NHL of the pleura have been described in the childhood<sup>8,9</sup>.

## REFERENCES

1. Au V, Leung, AN. Radiologic manifestations of lymphoma in the thorax. AJR 1997;168:93-98
2. Shuman, LS; Libshitz, HI. Solid pleural manifestations of the lymphoma. AJR. 1984;142:269-273
3. Kamesaki, H; Ohno, Y; Amano, H; et al. Malignant lymphoma developing from chronic empyema wall. Rinsho. Ketsueki. 1990Apr,31(4):511-5
4. Iuchi, K; Aozasa, K; Yamamoto, S; et al. Non-Hodgkin's lymphoma of the pleural cavity developing from long-standing pyothorax. Jpn. J. Clinical Oncology. 1989 Sept;19(3):249-57

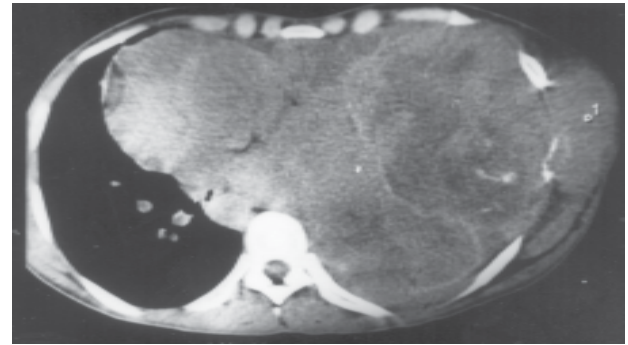


Fig.2 : Transaxial CT scan showing a left hemithoracic mass with bony destruction and extension into the soft tissues

5. Pop, CM; Gherasim, RM; Zamora, CD; et al. Primary pleural-pulmonary non-Hodgkin lymphoma. Rev. Med. Chir. Soc., Med. Nat.Iasi. 2003 Oct-Dec;107(4):903-5
6. Keung, YI K; Cobos, E; Morgan, D; et al. Non-pyothorax-associated primary pleural lymphoma with complex karyotypic abnormalities. Leukemia and Lymphoma. 1996;23:621-4
7. Kanno, M; Nakamura, S; Uotani, C; et al. Primary pleural non-Hodgkin's lymphoma without chronic pyothorax. Rinsho Ketsueki (Jpn. J. Clin. Hematol) 1999;40:678-84
8. Deng, LP; Hu, HJ; Zhang, SZ; et al. Radiological features of primary pulmonary non-Hodgkin lymphoma : report of three cases : Zhonghua Jie He He Hu Xi Za Zhi 2003 Apr;26(4):223-6
9. Karadeniz, C; Guven, MA; Ruacan, S; et al. Primary pleural lymphoma : an unusual presentation of childhood non-Hodgkin lymphoma. Pediatric. Hematol. Oncol. 2000 Dec; 17(8):695-9

## Dependable Anti-Diabetic Care

### Diapride

Glinopiride 1mg/2mg/4mg tablets

### Dibizide-M

Glipizide 5mg+Metformin 500mg tablets

### Melmet

Metformin 500mg tablets

### Rosinorm

Rosiglitazone 2mg & 4mg tablets

### Rosinorm-G

Rosiglitazone 2mg+Gliclazide 80mg tablets

### Diapride Plus

Glinopiride 1mg+Metformin 500mg tablets

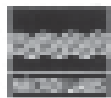
### Diapride Forte

Glinopiride 2mg + Metformin 500mg tablets

### Rosinorm-M

Rosiglitazone 2mg + Metformin 500mg tablets

For further information please write to :



**MICRO LABS LIMITED**

No. 3, Queen Road, Bangalore-560001.

email: microgmt@microlabsld.com