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Lymphoma Presenting Asymptomatic Pleural Effusion

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Abstract

Lymphoma presenting as a case of asymptomatic pleural effusion is a rare entity. We report a case of 56 years old average build male from northern India who is a known case of osteoporosis and vitamin B12 deficiency diagnosed few years before, came to our institute for routine health checkup without any symptom. Chest X-ray showed right sided pleural effusion. We planned for Pleural fluid study which was suggestive of lymph proliferative disorder. We decided to evaluate this patient in detail to look for type of malignancy, systemic involvement and treatment as early possible.

Keywords Lymphoma; Pleural effusion; Lymphoproliferative; Malignancy

Introduction

Lymphoma is a blood cell cancer affecting lymphocyte immune cells that normally protect our health by fighting infection. Sometimes these specialized blood cells develop defects (mutations) that cause them to divide or persist longer than they should forming tumors. One important role of normal B-cell lymphocytes is to make antibodies to fight infection. Follicular lymphoma (FL) arises from defective B-cell lymphocytes. B-cells arise from the bone marrow and mature (differentiate) into many cell types that tend to migrate to different areas of the body in order to defend against pathogens (viruses, bacteria, etc.). Non-Hodgkin's lymphoma is often complicated by pleural effusion and ascites [1]. Although the frequency of pleural effusion is 20-30% in non-Hodgkin's lymphoma (NHL) and Hodgkin's disease (HD). Akshatha Savith and co-authors said in their case report that, there should be a high index of suspicion for malignancy in patients presenting with hemorrhagic ascites or pleural effusion irrespective of patient's age. These patients should be thoroughly evaluated by CT scan and biopsy if feasible [2].

Case Presentation

56 years old male, average build from northern India, non-smoker and non-alcoholic, previously a known case Osteoporosis and Vitamin B12 deficiency for many years came to our institute for routine health checkup. He had no symptom like fever, cough, chest pain, weight loss, anorexia or any other problem. Vital parameters were stable. Chest examination showed decreased breath sound and decrease vocal resonance in right side of chest. On investigation- Hb-13 TLC-6810 Platelet-294000; Chest X-ray showed blunting of right costophrenic angle (Figure 1).

Figure 1: Chest X-ray of the patient.

Diagnostic pleural fluid aspiration showed- WBC-9600; Lymphoid cell-90%; Protein-5.1; Sugar-93; Pleural fluid cytology was suggestive of lymphoproliferative disorder. Bone marrow aspiration and biopsy showed diffuse infiltration of marrow by lymphoid cells. Whole body PET CT scan revealed multiple FDG avid bilateral deep posterior, cervical, multiple mediastinal nodes, mesenteric mass lesion (13.7 × 3.2 cm), FDG uptake in C7, D11, L5, bilateral iliac bone, right sided pleural effusion (Figures 2 and 3). Excision biopsies of right cervical and left inguinal lymph nodes were suggestive of B cell follicular lymphoma. Immunohistochemistry study showed atypical lymphoid cells within follicles strong positivity for BCL2, CD10, and CD20. The predominant population of small mature lymphocytes within interfollicular areas had diffuse positivity for CD3 and patchy positivity from BCL2. The MIB-1 labeling index within the neoplastic follicles was 35-40%.

Rituximab therapy was started. He is being discharged now in stable condition and advised to readmit and follow up after 1 month.

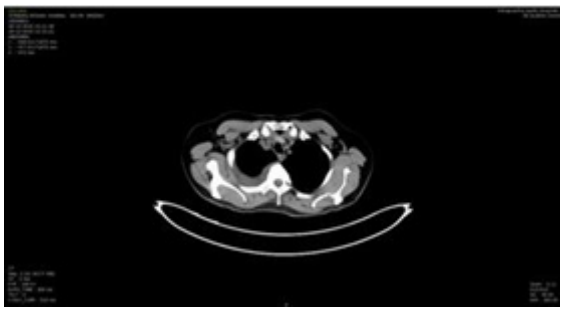

Figure 2: CT image of thorax (mediastinal window).

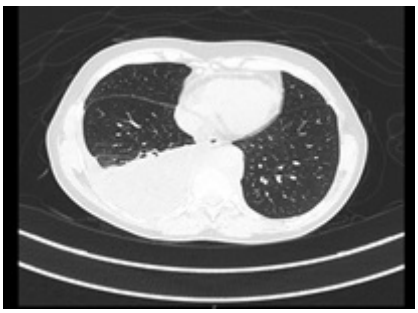

Figure 3: CT image of thorax (lung window).

Discussion

Lymphoblastic lymphoma is one uncommon malignancy found in less than 2% of non-Hodgkin's lymphoma (NHL). T-cell lymphoblastic lymphoma (T-LBL) belongs to almost 85–90% of all lymphoblastic lymphoma. Xin-Liang He et al. studied a patient of pleural effusion who was symptomatic. They had highlighted on diagnosis by thoracoscopy [3].

But in our patient, lymphoproliferative disorder was diagnosed on pleural fluid cytology followed by cervical lymph node excision biopsy. Another thing, they had found T-cell lymphoblastic lymphoma which is commonest type of lymphoblastic lymphoma. But we found it B-cell type. But Vega F et al. study the involvement of pleura by lymphoma was common and it was mostly by B-cell type [4]. UG Vandana et al. studied on two patients of lymphoma who developed pleural effusion. But they had symptoms like fever, breathlessness. But our patient was completely asymptomatic [5].

Lymphadenopathy is the most common manifestation of lymphoma. Follicular lymphoma commonly presented with enlargement of the lymph nodes in the neck, arms, abdomen, or groin, along with fatigue, breathlessness, night sweats, and weight loss [6]. Our patient had no such symptoms.

Conclusion

Asymptomatic pleural effusion in follicular B cell lymphoma is a rare finding. If clinical examination revealed unilateral pleural effusion and patient is still asymptomatic, always we have to investigate further. So early management may improve survival and may prevent morbidity and mortality of patient.

References

1. Das DK, Al-Juwaiser A, George SS, Francis IM, Sathar SS, et al. (2007) Cytomorphological and immunocytochemical study of non- Hodgkin's lymphoma in pleural effusion and ascitic fluid. Cytopathology 18: 157-167.
2. Savith A, Halakatti B, Keshava S, Somasekar DS, Perugu P (2013) Non-Hodgkin's lymphoma presenting as Hemorrhagic ascites and pleural effusion. Int J Clin Case Invest 5: 39-42.
3. Han X, Kilfoy B, Zheng T, Holford TR, Zhu C, et al. (2008) Lymphoma survival patterns by WHO subtype in the United States, 1973–2003. Cancer Causes Control 19: 841–858.
4. Vega F, Padula A, Valbuena JR, Stancu M, Jones D, et al. (2006) Lymphomas involving the pleura: A clinicopathologic study of 34 cases diagnosed by pleural biopsy. Arch Pathol Lab Med 130: 1497-1502.
5. Vandana UG, Parinitha SS, Myageri A, Annigeri V, Dinesh US (2014) T lymphoblastic lymphoma of pleura: A report of two cases with review of literature. Saudi J Health Sci 3: 118-120.
6. http://www.lymphoma.org