

Diffuse large B-Cell Non-Hodgkin's of Bronchus-associated Lymphoid Tissue (BALT) Lymphomas: Case Report

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Abstract Introduction: Bronchus-associated Lymphoid Tissue (BALT) lymphomas are a rare type of extranodal marginal zone lymphomas. Herein we report a rare instance, diffuse large B cell type lymphoma can present primarily in the lung. **Case Report:** A 57-year-old female patient was admitted to our clinic in November 2008, with complaints of shortness of breath, fever and a cough associated with the production of small amounts of phlegm. CT scan showed interstitial infiltration in between inspiratory. Pathological report revealed lymphoproliferative disorder (diffuse large B cell lymphoma) after left lung lobectomy. She was treated with six cycles of chop (cyclophosphamide + doxorubicin + vincristine + prednisolone) chemotherapy. Chest radiographs demonstrated significantly reduced in the parnshymal tissue in both lungs. **Conclusion:** DLBCL of BALT is very rare with nonspecific signs and symptoms. Furthermore, CHOP chemotherapy may be an effective treatment of the disease.

Keywords: BALT, CHOP chemotherapy, DLBCL

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1. Introduction

Bronchus-associated Lymphoid Tissue (BALT) lymphomas are a rare type of extranodal marginal zone lymphomas [1]. Primary malignant lymphoma of the lung may develop from bronchus-associated lymphoid tissue (BALT) [2]. Primary pulmonary diffuse large B-cell lymphoma (DLBCL) is particularly rare and occurs only in 10% cases of primary pulmonary NHL [3]. Herein we report a rare instance, diffuse large B cell type lymphoma can present primarily in the lung.

2. Case Report

A 57-year-old female patient was admitted to our clinic in November 2008, with complaints of shortness of breath, fever and a cough associated with the production of small amounts of phlegm. CT scan showed interstitial infiltration in between inspiratory (Figure 1). Pathological report revealed lymphoproliferative disorder (diffuse large B cell lymphoma) after left lung lobectomy. Percent of Ki67 was 60% of tumor cells and also BCL2, CD45, CD20, CD3 were positive but CD5, CD10, EMA, cytokeratin, CD30 and CD15 were negative. She was treated with six cycles of chop (cyclophosphamide +

doxorubicin + vincristine + prednisolone) chemotherapy. Chest radiographs demonstrated significantly reduced in the parnshymal tissue in both lungs (Figure 2).



Figure 1. Marked interstitial infiltration can be seen



Figure 2. Tumor size was significantly reduced in the parnshymal tissue

3. Discussion

Primary malignant non-Hodgkin's lymphomas arising in mucosa-associated lymphoid tissue (MALT) develop most frequently in the stomach, but also in the bowel, salivary glands, larynx, thyroid gland, and lung. Accordingly, when located in the lung, this lymphoma appears to arise from bronchus-associated lymphoid tissue (BALT) [2,4]. Methods for the treatment of primary pulmonary DLBCL, including simple monitoring, surgery, chemotherapy and chemotherapy followed by radiotherapy, are controversial and there is no uniform treatment strategy [5]. To the best of our knowledge, patients with primary pulmonary DLBCL have no overt symptoms during the initial stages; however, as the disease progresses, they are likely to present with non-specific symptoms, including dyspnea, cough, chest pain, sputum and other obstructive and infectious symptoms, as well as fever and weight loss [5]. Previously reported CT features of BALT lymphoma are the presence of consolidation with poorly defined margins and air bronchograms [2]. This indicates that anthracycline-based chemotherapy may be an optimal therapeutic strategy for patients with primary pulmonary DLBCL [6].

4. Conclusion

DLBCL of BALT is very rare with nonspecific signs and symptoms. Furthermore, CHOP chemotherapy may be an effective treatment of the disease.

References

- [1] Arnaoutakis K, Oo TH. Bronchus-associated lymphoid tissue lymphomas. *South Med J*. 2009. 102 (12): 1229-33.
- [2] Lee DK, Im JG, Lee KS, Lee JS, Seo JB, Goo JM, et al. B-cell lymphoma of bronchus-associated lymphoid tissue (BALT): CT features in 10 patients. *J Comput Assist Tomogr*. 2000. 24 (1): 30-34.
- [3] Zinzani PL, Martelli M, Poletti V, Vitolo U, Gobbi PG, Chisesi T, et al. Practice guidelines for the management of extranodal non-Hodgkin's lymphomas of adult non-immunodeficient patients. Part I: primary lung and mediastinal lymphomas. A project of the Italian Society of Hematology, the Italian Society of Experimental Hematology and the Italian Group for Bone Marrow Transplantation. *Haematologica*. 2008. 93 (9): 1364-71. Epub 2008 Jul 4.
- [4] O'Donnell PG, Jackson SA, Tung KT, Hassan B, Wilkins B, Mead GM. Radiological appearance of lymphomas arising from mucosa-associated lymphoid tissue (MALT) in the lung. *Clin Radiol*. 1998. 53 (4): 258-263.
- [5] Cadranel J, Wislez M and Antoine M: Primary pulmonary lymphoma. *Eur Respir J*. 2002. 20 (3): 750-62.
- [6] Aviles A, Nambo MJ, Huerta-Guzman J, Silva L, Neri N. Rituximab in the treatment of diffuse large B-cell lymphoma primary of the lung. *Hematology*. 2013 Mar; 18 (2): 81-4. Epub 2013 Jan 16.