Non-Hodgkin’s lymphoma presenting as multiple cavitating pulmonary nodules

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ABSTRACT: Intrathoracic involvement is common in non-Hodgkin’s lymphoma (NHL). We present the case of a young woman with a secondary pulmonary lymphoma (SPL) of the centroblastic subtype, with B-cell characteristics. The chest radiograph at presentation revealed an extremely rare pattern of multiple cavitating pulmonary nodules. The radiographic patterns of intrathoracic NHL are discussed.

The non-Hodgkin's lymphomas (NHL) are a heterogeneous group of lymphoid neoplasms, with remarkably different histological appearances, clinical presentations, prognoses, and responses to therapy. Thoracic involvement in NHL is common; usually, a distinction is made between primary pulmonary lymphoma (PPL) and secondary pulmonary lymphoma (SPL) [1].

Case report

The patient was a 31 year old woman, who had always been in good health. She had never smoked, and was not taking any medication. She had complained of anorexia, fatigue and malaise for about one month. There was a weight loss of approximately 8 kg over the last few months. There were no respiratory symptoms. A screening chest radiograph, taken on January 27, 1992, revealed multiple nodular opacities, some displaying discrete excavation (fig. 1). The patient was admitted to our department for further exploration.

Physical examination showed a pale, thin woman who was not acutely ill. The examination of the chest was completely normal; enlarged lymph nodes were not observed. The rest of the examination was also unrevealing. Laboratory tests results included a moderately elevated erythrocyte sedimentation rate (45 mm after 1 h, 80 mm after 2 h), a normal leucocyte count, with a normal differentiation and a lactate dehydrogenase (LDH) of 908 IU·L⁻¹ (upper limit of normal: 450 IU·L⁻¹). Tests for serum antineutrophil cytoplasmic auto-antibodies (ANCA), alpha-fetoprotein (AFP), carcinoembryonic antigen (CEA), human chorionic gonadotropin (HCG), and neuron-specific enolase (NSE) were negative. Serum immuno-electrophoresis showed no evidence of monoclonal gammopathy.

A computerized tomographic (CT) scan of the thorax was performed one week after the chest X-ray; it confirmed the excavating nodules in both lungs. The lesion at the top of the right lung was shown to be caused by a large, non-homogeneous mediastinal mass with excavation, extending ventrally and to the right of the trachea. Fibrebronchoscopy revealed extrinsic compression of...
Chest wtth B-cell characteristics, and are considered to comprise less than 1% of all cases of NHL [1]. They diastinal node involvement least 3 months after the diagnosis is made. Some fined PPL as a lymphoma that originally involves only in which there is no evidence of dissemination for at primary pulmonary lymphoma (PPL).

At autops y, lymphomatous disease progressed rapidly and the patient died of a primary pulmonary lymphoma (PPL). This patient had a case of PPL (a "lymphosarcoma of the large lymphocytic type") with a large mass in the lingula of the left lung, containing a central necrotic cavity, 8 cm in greatest diameter. STEINBERG et al. [8] reported a case of PPL (a "small cell lymphocytic lymphoma") having a large consolidation in the left upper lobe with a large cavity, 6 cm in greatest diameter, and a fluid level. One of the cases in the series of BARON and WHITEHOUSE [9], reported to be a case of PPL (a "lymphosarcoma"), displayed a rounded lesion in the right middle lobe showing excavation. BALIKIAN and HERMAN [10] described cavitation in a solitary nodule in two patients with SPL (both of the "histiocytic type"), following chemotherapy in one case. Finally, CORDIER et al. [4], mention one case with a cavitary mass on chest X-ray in their series of 70 cases of PPL: this patient had a low-grade NHL.

The occurrence of multiple cavitating pulmonary nodules in NHL, as was the case in our patient, is extremely rare. To the best of our knowledge, only one such case has been reported; NORTH et al. [11] depicted the chest radiograph of a patient with a large cell lymphoma, showing multiple excavating lesions. It was not specified whether this was a case of PPL or SPL.

Our case emphasizes the fact that NHL has to be included in the differential diagnosis of multiple cavitating pulmonary nodules.

References
2. The Non-Hodgkin's Lymphoma Pathologic Classification
CAVITATION OF PULMONARY NODULES IN NHL


