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EXTRAPULMONARY TUBERCOLOSIS AND NON-HODGKIN'S LYMPHOMA: COEXISTENCE IN AN ABDOMINAL LYMPH NODE

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A 58-year-old woman with no significant medical history developed unexplained weight loss, anorexia, abdominal pain and distension. Physical examination revealed multiple masses in the abdomen, and radiographic studies showed multiple lymphadenopathies in all abdominal quadrants. A chest X-ray was normal and she had no family or personal history of tuberculosis. Antibodies against the human immunodeficiency virus (HIV) were not found and lymphocyte subsets ($CD4^+$ and $CD8^+$) were normal. A diagnostic laparotomy was performed and several enlarged lymph nodes removed. Pathologic examination was consistent with a diagnosis of diffuse large cell (immunoblastic) B-cell lymphoma (Figure 1). Surprisingly, the same lymph nodes showed extensive areas of epithelioid giant-cell granulomas with central necrosis which were adjacent to the lymphomatous tissue (Figure 1). Acid-fast bacilli were not observed with special stains, but a lymph node sample was sent for microbiologic study and grew abundant colonies of *Mycobacterium tuberculosis*. After complete staging, the patient was diagnosed as having isolated intra-abdominal lymph node tuberculosis coexistent with a stage IIB large cell lymphoma. She received six consecutive cycles of CHOP (cyclophosphamide, adriamycin, vincristine and prednisone) as well as antituberculous treatment with isoniazid + rifampicin (nine months) and pyrazinamide (three months). After finishing both treatments the patient was in complete lymphoma remission with no evidence of tuberculosis reactivation due to treatment-induced immunosuppression.

Discussion

The presence of epithelioid granulomas around neoplastic tissues is a well-recognized phenomenon,[1] especially in association with lymphomas.[2] These granulomas may occur in

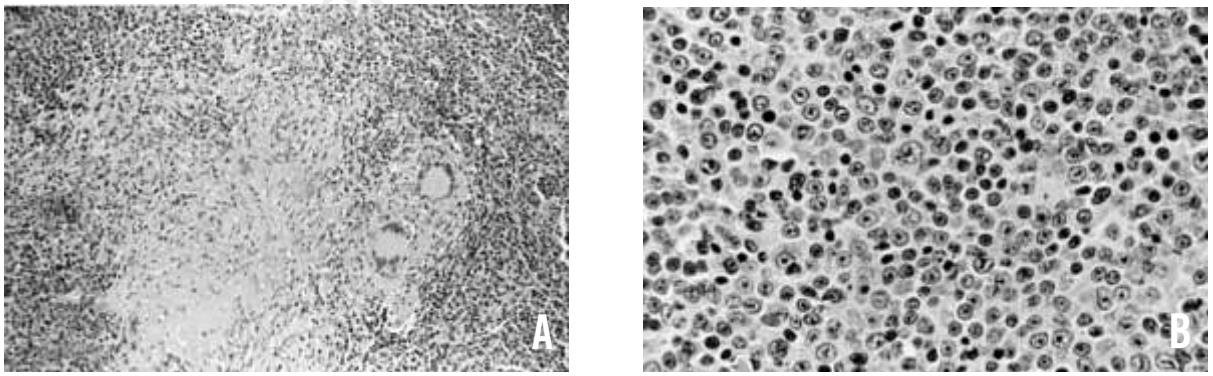

Figure 1. High-power microscope examination (H&E x 100) reveals a diffuse large cell innunoblastic lymphoma showing adjacent epithelioid granuloma with extensive central necrosis and giant Langhans' cells (A). High magnification (H&E x 400) doscloses large cells with vesicular nuclei, basophilic cytoplasm and a prominent single central nucleolus, all characteristic of immunoblastic lymphoma (B).

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regional and/or distant lymph nodes or within the tumor itself.[3] Nevertheless, they are usually non-caseous epithelioid granulomas, although in rare instances they show caseous necrosis suggestive of tuberculosis.[4] In these cases an infectious cause is not found and their development has been attributed to an immune or inflammatory reaction to tumor-associated antigenic determinants,[5] or to the production of cytokines by the tumor cells.[4] There has been one previous description of tuberculous granulomas and lymphoma coexisting in a same lymph node in an HIV-positive patient, but we are unaware of any other such reports; thus this association was probably coincidental in our patient.[6] Our case is also exceptional because our patient had no past of history and no known risk factors for tuberculosis, and the abdominal lymph nodes studied appeared to be the only sites of overt tuberculous disease. We cannot determine the temporal relationship between these two diseases (ie whether tuberculosis developed after the lymphoma or whether the lymphoma appeared in an occult site of tuberculosis), but this case highlights the need to perform surveillance cultures whenever granulomas are found in a lymph node biopsy.

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