Pleural Effusion Due to Adult T Cell Leukemia

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Key words: pleural effusion, HTLV-1

(A Intern Med 58: 3197-3198, 2019)
(DOI: 10.2169/internalmedicine.3144-19)

A 73-year-old woman with history of left breast cancer surgery suffered from dyspnea. She was bone in Oita prefecture, Japan. Laboratory findings revealed an elevated lactate dehydrogenase level (1,063 U/L), while the soluble interleukin (IL)-2 receptor level had also increased (164,840 U/mL). Human T cell leukemia virus type I (HTLV-1) antibody was detected, whereas no abnormal lymphocytes were found in peripheral blood. A chest X-ray revealed left-sided massive pleural effusion (Picture 1). Chest computed tomography revealed an enlarged mediastinal lymph node. Many abnormal lymphocytes with a flower-cell morphology were found in the pleural effusion (Picture 2). A Southern blot analysis of them detected the integration of the HTLV-1 proviral DNA. HTLV-1 had been suspected to have been transmitted through breast feeding. Pleural effusion due to acute adult T cell leukemia/Lymphoma (ATLL) was diagnosed. The pleural effusion remarkably decreased after receiving 8 weeks of chemotherapy for ATLL. ATLL commonly involves leukemic infiltrates in a variety of organs. Although pleural effusion has been recognized as a manifestation of acute-type ATLL, the present case did not demonstrate most of the general features of acute-type, such as a rapid course with leukemic manifestation (> 2% ATL cells), lymphadenopathy, hepatosplenomegaly, skin involvement and hypercalcemia (1, 2). For clinicians, it is important to consider the possibility of ATLL in patients presenting with pleural effusion in HTLV-1 endemic areas in Japan.

The authors state that they have no Conflict of Interest (COI).

References

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Received: April 4, 2019; Accepted: May 12, 2019; Advance Publication by J-STAGE: July 10, 2019

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