Case report

Primary malignant lymphoma of the central nervous system presenting with ascites and pleural effusion

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Abstract—A 70-year-old woman was admitted to our hospital owing to ascites and pleural effusion. Though malignant cells (B-cell type lymphoma) were detected in both the ascites and pleural effusion, neither lymph node swelling nor a tumor was detected upon chest, abdominal and pelvic computed tomography (CT). After weekly THP-COP therapy for 8 weeks, the ascites and pleural effusion completely disappeared. Two years after the first admission, she was re-admitted because of a disturbance of consciousness, and a brain tumor was detected on CT scan. The immunohistological and genetic data for the brain tumor were identical to those of the malignant cells in the pleural effusion and ascites detected 2 years previously. Whereas the symptoms at onset of a primary lymphoma of the central nervous system (CNS) are usually neurological ones, in this rare case of primary CNS lymphoma, the symptoms at onset were the ascites and pleural effusion without neurological symptoms.

Key words: Central nervous system (CNS); lymphoma; ascites; pleural effusion.

INTRODUCTION

Primary malignant lymphoma of the central nervous system (CNS) is an uncommon tumor which accounts for approximately 1% of all primary brain neoplasms, and 0.7–1.7% of all non-Hodgkin’s lymphomas [1–3]. However, they are being reported with increasing frequency in both immunocompetent and HIV-infected patients [2–5]. The prognosis in primary CNS lymphoma is very poor. Although radiotherapy has been shown to prolong survival beyond that expected with surgery alone, approximately half of the patients with this disease will die 1 year after...
initiation of treatment, and more than 95% will die by 3 years after initiation of treatment [6].

We report a case of primary lymphoma of the CNS presenting with ascites and pleural effusion as the initial symptoms.

CASE REPORT

A 70-year-old woman was admitted to our hospital on December 27, 1995. She had noted a sense of abdominal fullness since November 1995. Massive ascites and pleural effusion had been detected before her admission to our hospital. The cytological examination of both the ascites and pleural effusion revealed malignant lymphoma (Fig. 1a), and the biopsy specimen of pleura showed malignant lymphoma cell infiltration (Fig. 1b). There were no neurological findings, nor did any

Figure 1. (a) Cytology of the ascites stained with Wright-Giemsa staining reveals abundant lymphoma cells with hyperchromatic ovoid nuclei and prominent nucleoli. (b) Histology of the pleura with H. E. staining shows the focal infiltration of atypical mononuclear cells with large nuclei and prominent nucleoli.

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