Gallbladder involvement of diffuse large B-cell lymphoma mimicking gallbladder carcinoma

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To the Editor,

We report a case of diffuse large B-cell lymphoma of the gallbladder mimicking gallbladder carcinoma. In this case, ERCP-guided brush cytology was useful for the differential diagnosis.

A 54-year-old male was admitted to the hospital due to abdominal pain in September 2009. A physical examination revealed cervical lymphadenopathy. The laboratory data revealed increased serum levels of LDH (539 IU/l) and soluble interleukin-2 receptor (1230 U/ml). Abdominal ultrasonography (US) showed gallbladder wall thickening. Contrast computed tomography (CT) revealed irregular thickening of the gallbladder wall. The gallbladder lesion showed low-intensity on T1-weighted magnetic resonance (MR) images and high intensity on diffusion-weighted (DW) images (Fig. 1). A cervical lymph node biopsy was performed and the pathological examination revealed a diffuse large B-cell lymphoma (DLBCL). His serum CA19-9 level was also elevated (49.6 U/ml). Unfortunately, it was very difficult to distinguish gallbladder involvement of DLBCL from primary gallbladder carcinoma. Endoscopic retrograde cholangiopancreatography (ERCP) was performed and the bile duct cytology showed a non-specific findings. However, ERCP-guided brush cytology demonstrated large abnormal lymphoid cells (Fig. 2). Flow cytometric analysis revealed that these abnormal lymphoid cells were positive for CD19 and CD20. A chromosome analysis revealed a normal karyotype. These results led us to the diagnosis of gallbladder involvement of DLBCL. He was treated with R-CHOP therapy and complete remission was achieved. CT and US showed that the GB wall thickening had disappeared.

Although malignant lymphoma is thought to be a malignant tumour of the lymph nodes, 40% occurs in extranodal tissues or organs. Most extranodal lymphomas originate from the gastrointestinal tract. The gallbladder is rarely infiltrated by malignant lymphoma. The gallbladder involvement of malignant lymphoma is difficult to distinguish from a gallbladder carcinoma. A wide variety of malignant tumours can arise in the gallbladder, with over 98% being adenocarcinomas but just 0.1-0.2% being malignant lymphomas (1-4). ERCP-guided brush biopsy was useful for determining the definitive diagnosis of the gallbladder involvement of lymphoma in the current case. Malignant lymphoma should be taken into consideration as a differential diagnosis in patients with a gallbladder tumour.

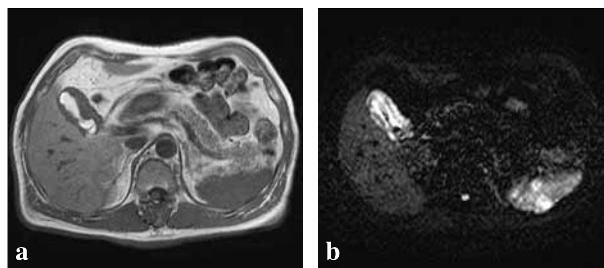

Fig. 1. — The gallbladder lesion showed low-intensity on T1-weighted magnetic resonance (MR) images (a) and high intensity on diffusion-weighted (DW) images (b).

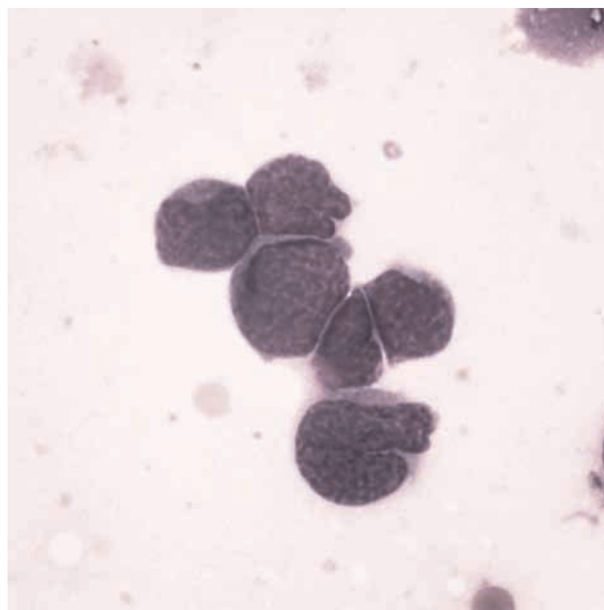

Fig. 2. — ERCP-guided brush cytology demonstrated large abnormal lymphoid cells (May Giemsa, ×400).

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Submission date : 07/05/2011
Acceptance date : 26/05/2011

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