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Gallbladder infiltration in acute lymphoblastic leukemia

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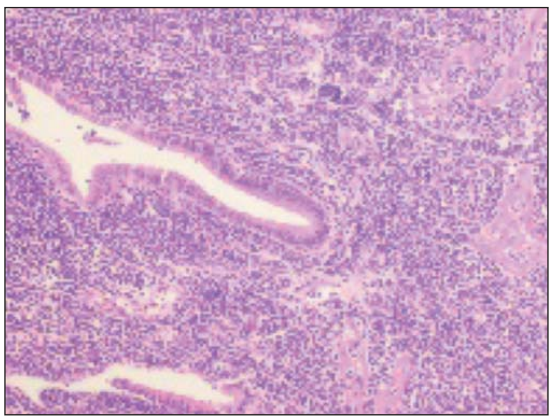

Figure 1. Leukemic infiltration in gallbladder sections stained with Hematoxilen-Eosin (HE, x 100).

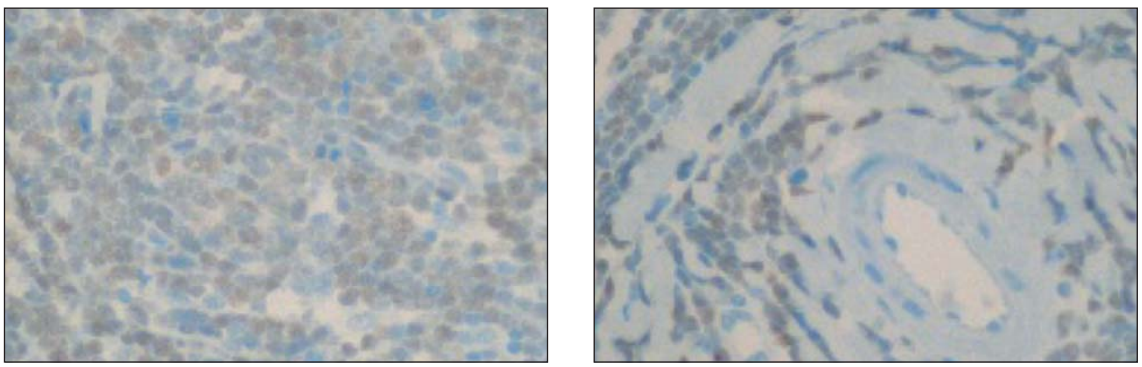

Figure 2. Positive TdT staining of leukemic cells in pathologic sections of gallbladder infiltration (x 400).

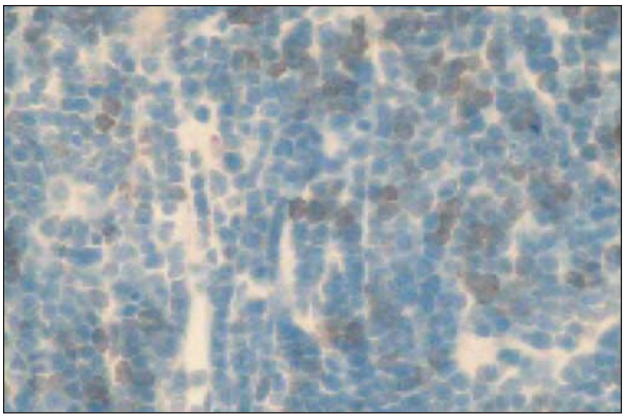

Figure 3. Positive immunohistochemical staining of leukemic cells with anti-CD79a antibody. (x 400)

A 25 year-old man with acute lymphoblastic leukemia relapsed after two years of initial treatment. Peripheral WBC count was 13.7 x 10^9/L and % of blasts was 72. Bone marrow infiltration with 74% blasts was observed. The flow cytometric analysis revealed CD10, CD19, CD20, CD3, CD5, and CD7 positivity implying a biphenotypic acute lymphoblastic leukemia. There was hepatosplenomegaly during the relapse. He achieved hematologic complete remission after chemotherapy. But splenomegaly persisted. He underwent splenectomy before allo-SCT to determine whether splenomegaly was due to leukemic infiltration or not. Open surgery procedure was applied. During the operation a mass measuring approximately 20 mm was determined in gallbladder and thus cholecystectomy was performed. It was interesting that the patient did not have any signs and symptoms of gallbladder involvement and radiologic examination did not indicate a pathological sign before surgery. Although no leukemic cell infiltration was seen in histopathologic examination of the spleen, cholecystectomy material showed leukemic infiltration as determined by TdT and CD79a positive staining.

Extramedullary organ infiltration in acute lymphoblastic leukemia is seen in 2% of cases. Central nervous system is the most common location but extramedullary relapses may occur at any site. To our knowledge this is the first case of acute lymphoblastic leukemia presented with gallbladder infiltration.