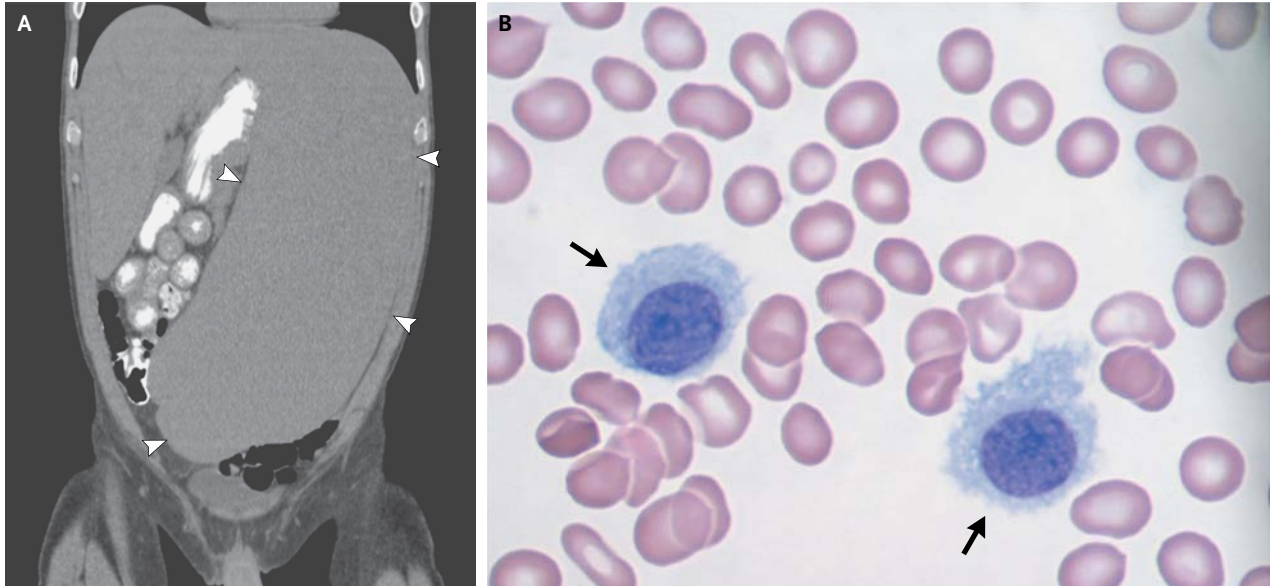


IMAGES IN CLINICAL MEDICINE

Massive Splenomegaly in Hairy-Cell Leukemia



A 63-YEAR-OLD MAN PRESENTED WITH A 6-MONTH HISTORY OF FATIGUE, weight loss, and gingival bleeding. Physical examination suggested the presence of a massively enlarged spleen, a finding confirmed on a reconstructed coronal computed tomographic image of the abdomen (Panel A, arrowheads). A complete blood count revealed thrombocytopenia (platelet count, 27,000 per microliter; reference range, 150,000 to 400,000) and lymphocytosis (lymphocyte count, 8900 per microliter; reference range, 1000 to 4800). Microscopical examination of a bone marrow aspirate revealed abnormal lymphocytes with abundant light-blue cytoplasm, round nuclei, fine chromatin, and irregular projections of the cell membrane (Panel B, arrows). Similarly abnormal lymphocytes were also evident on microscopical examination of a peripheral-blood smear. Immunohistochemical staining was positive for tartrate-resistant acid phosphatase. Immunophenotyping by means of flow cytometry was positive for CD19, CD20, CD11c, CD25, and CD103 and negative for CD5 and CD10. These findings confirmed a diagnosis of hairy-cell leukemia. Named for the microscopical appearance of its malignant cells, this uncommon, indolent B-cell non-Hodgkin's lymphoma often presents with cytopenias, systemic symptoms, and massive splenomegaly. This patient had a complete remission after treatment with the purine analogue cladribine. He remained in remission at his last follow-up, at 9 months, with normal peripheral-blood counts, a normal bone marrow aspirate, and no evidence of splenomegaly.

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