



## Hemepath Case 27: 55-Year-Old Female

### HISTORY

A 55-year-old female from Japan presents with a 1-week history of papules and nodules. The lesions began on her trunk and quickly spread throughout the entire body. The patient also complains of fatigue, constipation, and increased urinary frequency for the past several months. Physical examination reveals cervical, axillary, and inguinal lymphadenopathy, as well as hepatosplenomegaly.

### CBC

Hgb (g/L)	N
MCV	N
WBC	High
Plt	N

### OTHER LABORATORY FINDINGS

LDH	High
Serum Ca	High

### DESCRIPTION OF SLIDE

#### Peripheral Blood Smear

The peripheral blood smear shows marked lymphocytosis, with generally unremarkable RBCs, neutrophils, and platelets. Lymphocytes have a convoluted nuclear margin, resembling "flower cells" (see circles). They have coarse nuclear chromatin and are not blasts.

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### MORPHOLOGICAL DIAGNOSIS

Adult T-cell leukemia/lymphoma (ATLL)

## DISCUSSION

Endemic to southern Japan and the Caribbean islands, adult T-cell leukemia/lymphoma (ATLL) is an aggressive malignancy of T-cells caused by retrovirus HTLV-1 (human T-cell leukemia/lymphoma virus type 1). An acute form of ATLL is seen in this patient and is supported by her presentation of cutaneous lesions, hepatosplenomegaly, and diffuse lymphadenopathy. The patient's history of fatigue, constipation, and polyuria is consistent with the elevated serum calcium level.

Abnormal T-helper CD4+ cells with multilobated nuclei ("flower cells") in the peripheral smear are characteristic of this malignancy.