

Auer Rod-Like Inclusions in B-Cell Prolymphocytic Leukemia

B Hücreli Prolenfositik Lösemide Auer-Rod Benzeri İnküzyonlar

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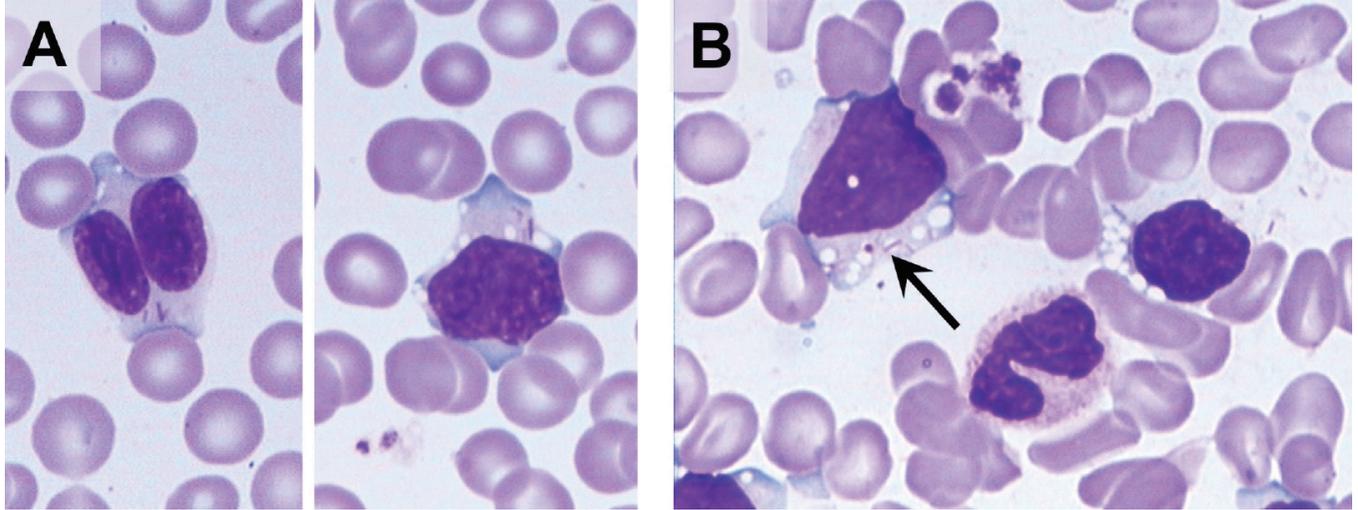


Figure 1. (A) Blood smears and (B) bone marrow smears demonstrating abnormal lymphocytes with Auer rod-like inclusions (1000x, Wright-Giemsa stain).

A 76-year-old male patient presented with increasing leukocytes in the past month. Laboratory investigation showed leukocytosis of $30.03 \times 10^9/L$ (normal: $3.5-9.5 \times 10^9/L$) with absolute lymphocytosis of $20.7 \times 10^9/L$ (normal: $1.1-3.2 \times 10^9/L$), with normal hemoglobin and platelet counts. Review of the peripheral blood smears (Figure 1A) and bone marrow smears (Figure 1B) demonstrated 64% and 74.5% prolymphocytes, respectively, with nucleoli, vacuoles, and Auer rod-like inclusions. The cytoplasmic inclusions were negative for myeloperoxidase by immunohistochemistry. Flow cytometry demonstrated a kappa-restricted CD19 and CD20 immunoreactive B-cell population making up to 67.1% of cells and 93.1% of lymphocytes, with partial expression of sIgM and lacking CD5, CD10, and CD23. No significant expression of CD38 was present. Although Auer rod-like inclusions were seen, there was no evidence of increased

immature myeloid cells by flow cytometry or morphology. *IgVH* (FR1-FR3) mutation was not appreciable by molecular biology studies before or during this period. The patient achieved a partial response with chlorambucil treatment.

Auer rod-like inclusions have been reported in B-lineage malignancies like multiple myeloma [1,2]. Electron microscopy revealed these structures to be swollen mitochondria or immunoglobulins [3,4], while classical Auer rods are formed by aggregation and concentration of peroxide granules in myeloid blasts.

Keywords: Auer rod-like inclusions, B-cell prolymphocytic leukemia, Lymphocytes

Anahtar Sözcükler: Auer-Rod benzeri inklüzyonlar, B hücreli prolenfositik lösemi, Lenfositler



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