

## Flaming Plasma Cell Leukemia

### Alevsi Plazma Hücreli Lösemi

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A 58-year-old man presented with anemia and splenomegaly. Peripheral blood smear indicated rouleaux formation along with 28% mononuclear cells with reddish-purple peripheral cytoplasm suspicious for plasma cells (PCs). Flow cytometric immunophenotyping of the peripheral blood revealed a large mononuclear population positive for CD38, CD138, and CD20 and negative for CD45, CD19, and CD56. Intracytoplasmic staining of kappa and lambda light-chains demonstrated lambda restriction. The serum protein electrophoresis pattern illustrated normal density in the  $\gamma$ -globulin region but an increase of about threefold in the  $\beta$ -globulin fraction.

Regarding these findings, the patient was more likely to be diagnosed with IgA monoclonal gammopathy [1]. However, a definitive diagnosis was made by immunonephelometric evaluation of serum immunoglobulins. This assay revealed 810 mg/dL IgG, 1595 mg/dL IgA, and 22 mg/dL IgM with a free kappa/lambda ratio of 0.14.

PCs have particular morphological features including oval-shaped structure and eccentric nuclei. IgA-secreting PCs have cytoplasm with a pinkish tinge associated with the presence of abundant glycoprotein and ribosomes and are totally known as flame cells (Figure 1). PC leukemia, in particular the IgA variant, is a rare and aggressive type of PC dyscrasia [2]. A well-prepared peripheral blood smear can be very helpful in diagnosing and determining the next diagnostic approach.

**Keywords:** Plasma cell leukemia, Flame cell, Immunoglobulin A

**Anahtar Sözcükler:** Plazma hücre lösemi, Alevsi hücre, İmmunoglobulin A

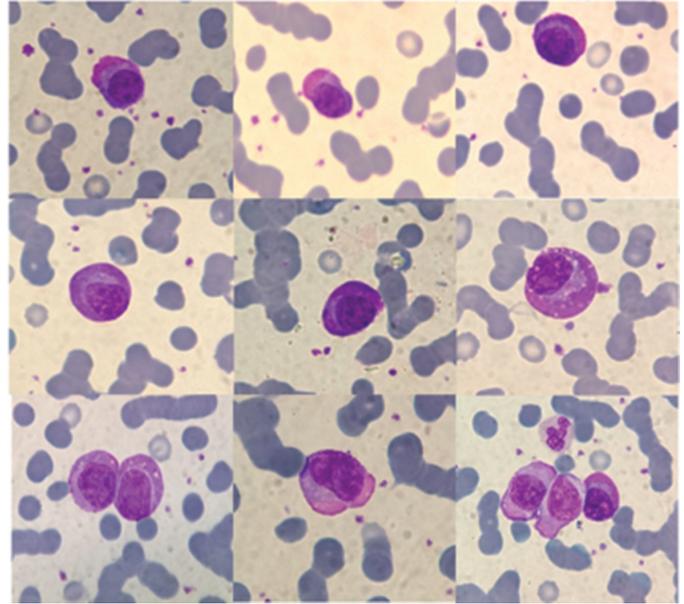


Figure 1. Flame cells.

**Informed Consent:** It was received.

**Conflict of Interest:** The authors of this paper have no conflicts of interest, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

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