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The Many Faces of Multiple Myeloma

Multipl Myelomun Farklı Yüzleri

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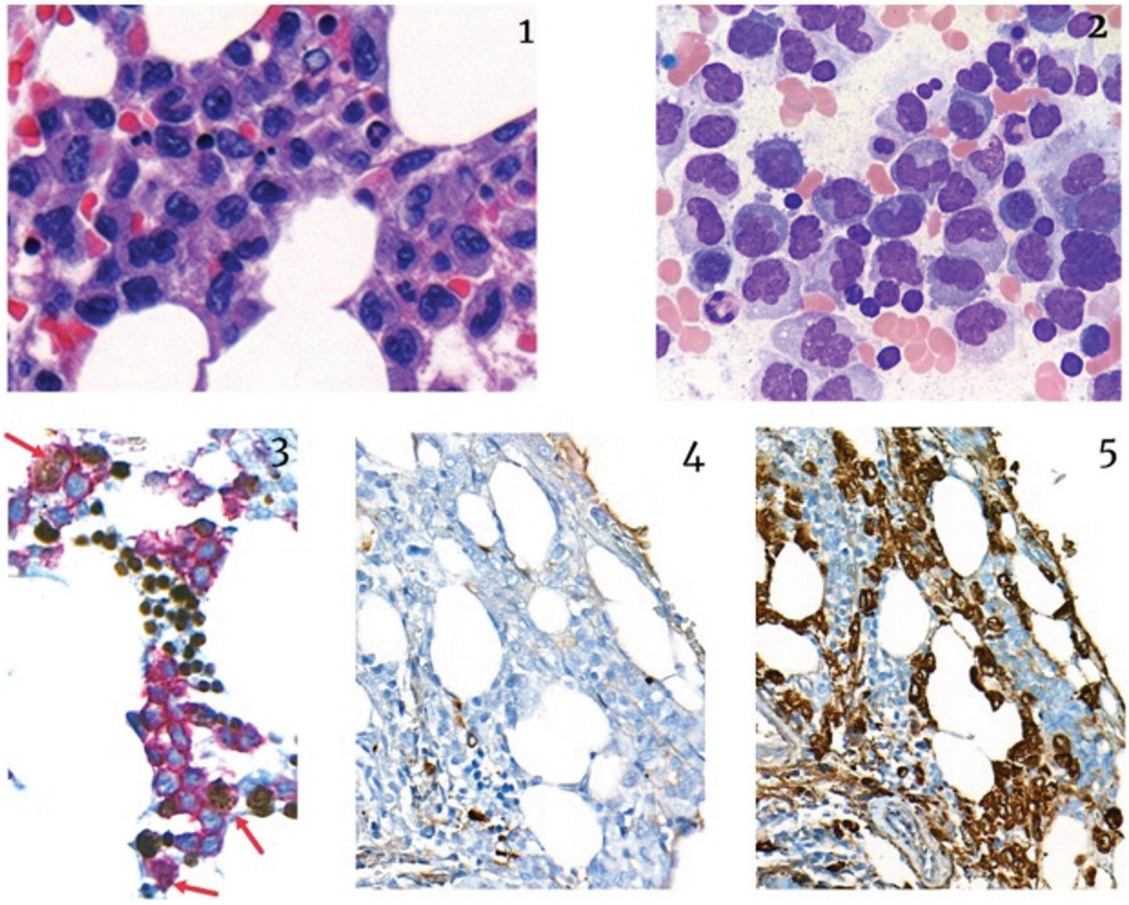

Figures 1-5. 1. Neoplastic infiltration by atypical cells with monocytoid morphology on bone marrow trephine biopsy sections (H&E). **2.** Neoplastic atypical cells with monocytoid morphology on bone marrow aspirate smears (Giemsa). **3.** CD138 (red)-Ki-67 (black) double immunohistochemistry revealing increased proliferative activity (12%) among atypical plasma cells (arrow). **4.** Kappa Ig light chain negativity. **5.** Lambda Ig light chain restriction.

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A 66-year-old man with a 2-year history of multiple myeloma (MM) with t(4;14) (bone marrow analysis) was admitted to our hospital with severe pancytopenia. His hemoglobin level was 5.9 g/dL, white blood cell count was $1.47x10^9$/L, and platelet count was $44x10^9$/L. A free light chain assay confirmed the progression of MM with an increase of 2152.5 mg/dL in serum lambda light chain levels. The patient was treated initially with bortezomib-cyclophosphamide-dexamethasone followed by autologous stem cell transplantation. Due to an early relapse under lenalidomide maintenance, bortezomib-lenalidomide-dexamethasone treatment was initiated, to which he remained refractory.

Bone marrow biopsy was consistent with interstitial infiltration by large pleomorphic, atypical cells with prominent large irregular and multilobate nuclei, visible nucleoli, thin granular chromatin, and some vacuolated cytoplasm, suggesting high-grade lymphoma or acute leukemia with monoblastic differentiation (Figures 1 and 2).

Flow cytometry revealed CD38, CD138, and CD56 expression, suggesting plasma cell origin, which was confirmed by strong CD138 and lambda expression by immunohistochemistry (Figures 3-5).

Anaplastic morphology and resistance to conventional therapy are compatible with the unfavorable genetic abnormality observed in this case [1]. Anaplastic MM is characterized by pleomorphic and markedly enlarged plasma cells and poor clinical outcome [2,3,4,5]. The abnormal morphology can be confused with acute leukemia or aggressive lymphoma at the time of the initial diagnosis. The clinical history, flow cytometry, molecular findings, and immunohistochemistry are helpful in confirming the diagnosis.

Keywords: Myeloma and other plasma cell dyscrasias, Neoplasia, Immunology, Marrow

Anahtar Sözcükler: Myelom ve diğer plazma hücre diskrazileri, Neoplazi, İmmunoloji, Kemik iliği

Ethics

Informed Consent: Informed consent was obtained from the patient for the anonymous use of materials taken from him in all kinds of research following the necessary procedures.

Authorship Contributions

Surgical and Medical Practices: G.C.S., M.B.; Concept: I.K.; Design: I.K.; Data Collection or Processing: A.T.B.; Analysis or Interpretation: A.T.B., I.K.; Literature Search: A.T.B.; Writing: A.T.B., I.K.

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