



Morphology in Hematology

Aggressive Multiple Myeloma with Unusual Morphology

Olağan Dışı Morfoloji ile Multipl Miyelom

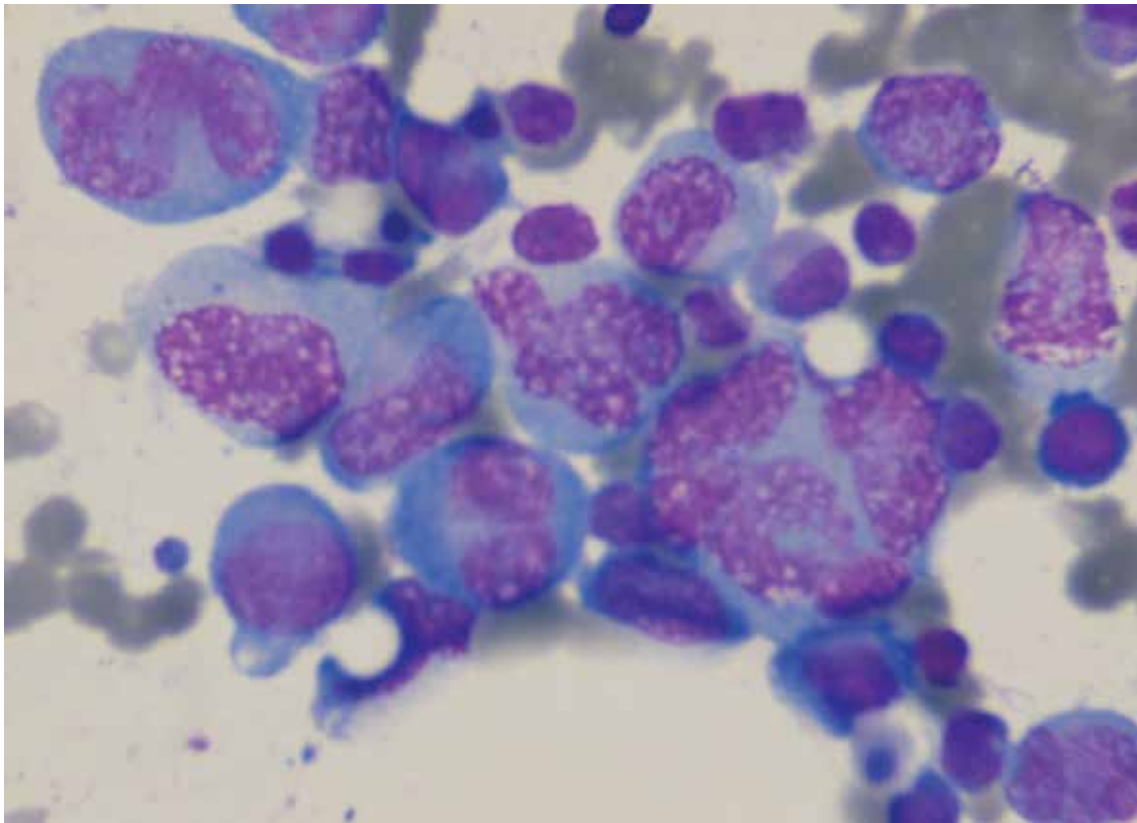


Figure 1. Atypical and multinucleated plasma cell infiltration in the bone marrow aspirate (Wright's stain, 100x).

A 66-year-old male patient was admitted to the hospital with backache, fatigue, and paraesthesia and spasm in both legs. He had lower extremity numbness and bladder and bowel incontinence. Physical examination revealed the absence of bilateral lower extremity reflexes and lower extremity weakness. Magnetic resonance imaging showed a large mass extending from T8 to T9, fracture of T9, and compression of the spinal cord. Informed consent was obtained.

Laboratory results at initial evaluation revealed the following: haemoglobin: 118 g/L, haematocrit: 33.5%, white blood cell count: $6.7 \times 10^9/L$, platelets: $192 \times 10^9/L$, blood urea nitrogen: 7.5 mmol/L, creatinine: 113.1 $\mu\text{mol/L}$, calcium: 1.9 mmol/L, total protein: 63 g/L; albumin: 31 g/L; and erythrocyte sedimentation rate: 59 mm/h. Protein studies by nephelometry revealed IgA of 4.25 g/L (reference range: 0.7-4 g/L) and lambda light chain of 3.98 g/L (reference range: 0.9-2.1 g/L). A small monoclonal spike was present upon protein electrophoresis. Urine immunoelectrophoresis documented no monoclonal light chain. Bone marrow aspirate and biopsy were performed and the patient underwent surgical decompression and stabilisation of the thoracic spine. The bone marrow aspirate and biopsy morphology showed infiltration with atypical, multilobated, cleaved, and monocytoid nuclei plasma cells (Figures 1 and 2). The biopsy material stained positive with lambda light chain and CD138.

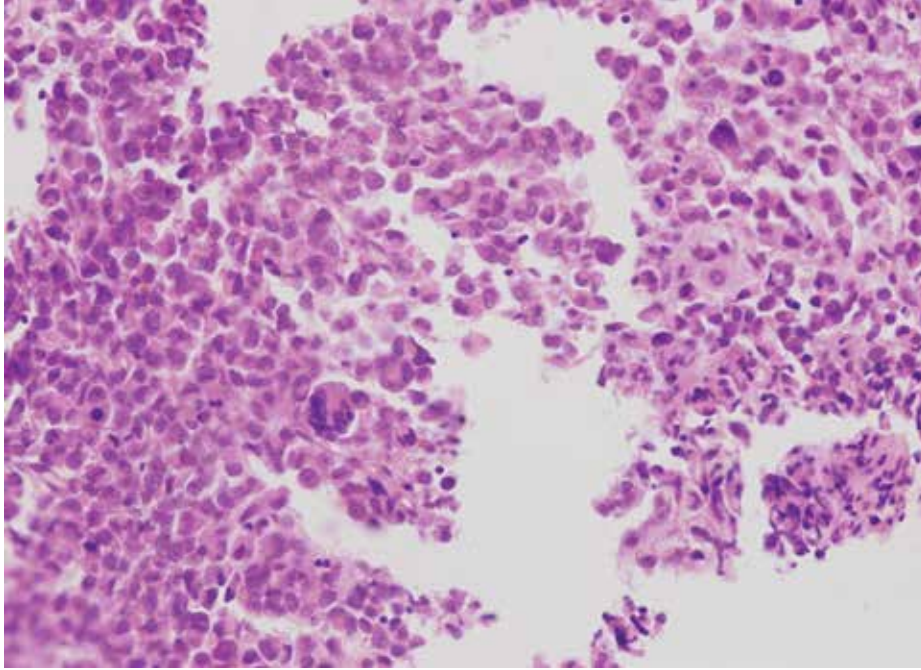


Figure 2. Atypical and multinucleated plasma cell infiltration in the bone marrow biopsy (H&E, 20x).

The neoplastic plasma cells exhibit a variety of morphologies. Poorly differentiated plasma cells may show atypical morphology, making it difficult to recognise their plasma cell nature. Plasma cell morphology correlates with disease course, prognosis, and resistance to conventional treatment [1,2,3].

Conflict of Interest Statement

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.

Key Words: Multiple myeloma, Unusual morphology

Anahtar Sözcükler: Multipl miyelom, Olağan dışı morfoloji

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