



A case of multiple myeloma with multilobated plasma cell nuclei

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A 72-year-old asymptomatic man presented with a serum monoclonal gammopathy (IgG λ), detected at a routine check. There were no organomegalies. He was slightly anemic; white cell and platelet counts were normal as were calcium levels. Radiologic study of the skeleton showed no lytic lesions. A bone marrow aspirate revealed high cellularity: normal hematopoietic precursors were decreased and there was a massive infiltration of cells with convoluted and multilobated nuclei. These cells were large, with abundant basophilic cytoplasm and bizarre nuclear morphology: nuclei were sometimes irregular or deeply indented, with monocytoïd features, sometimes bilobed or multilobed with prominent blebs (Figure 1). Chromatin was rather dense with few visible nucleoli. Occasional cells had typical plasma cell morphology.

Immunofluorescence study on a bone marrow smear revealed λ light chain in the cytoplasm of cells with abnormal nuclear morphologic characteristics as well as in typical plasma cells (Figure 2).

Plasma cell myeloma was diagnosed and treatment with melphalan and prednisone was started.

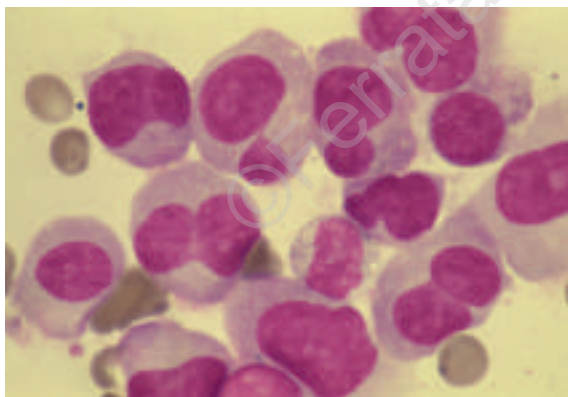


Figure 1. Bone marrow smear. Atypical plasma cells with convoluted and multilobated nuclei (MGG, $\times 1200$).

Multiple myeloma with convoluted and multilobated nuclei is a rare morphological variant, characterized by an aggressive course and resistance to conventional chemotherapy.¹⁻⁴ The unusual cytologic features often make its recognition difficult. Immunocytology may be useful to avoid erroneous diagnoses of other hematologic malignancies, in particular monocytic leukemia.

References

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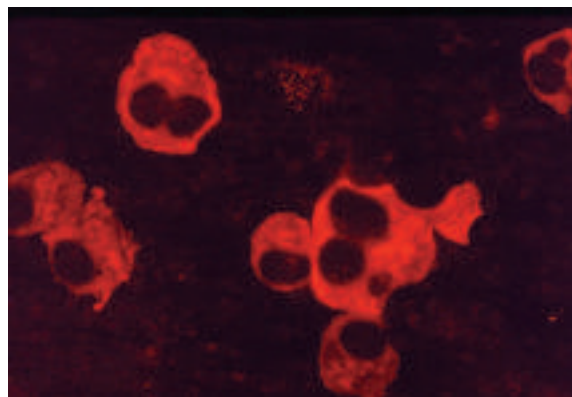


Figure 2. Bone marrow smear. Immunofluorescence for light chain shows that most cells are labelled by anti- λ . ($\times 1200$).