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Light chain myeloma with highly atypical plasma cells and extensive Auer rod-like inclusions

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To the Editor,

A 73-year-old woman with a history of chronic kidney disease presented with fever (39.8 °C), dyspnoea and fatigue. Complete blood count showed moderate normocytic anemia with hemoglobin of 10.0 g/dL (12.0 – 16.0), mild leukocytosis of 10.8 x 10^9/L (4.0 – 9.0), and thrombocytopenia of 102 x 10^9/L (150 – 400). Serum protein electrophoresis showed mild hypogammaglobulinemia of 6.7 g/L (7.0 – 16.0). Serum immunofixation demonstrated monoclonal κ-type light chains without heavy chain correlate (IgG, IgM, IgA, IgD, IgE). Moreover, serum-free light chain assay measured high κ-type light chain level of 2060.0 mg/L (3.3 – 19.4) with a κ/λ-ratio of 48.5 (0.3 – 1.7).
The bone marrow aspirate smear showed 40% plasma cells, many of which appeared as binuclear plasmoblastic cells with nucleoli ("owl-eyed" plasma cells), bright cytoplasm and bundles of numerous Auer rod-like cytoplasmatic inclusions (Figure 1 A and B). This unique morphology is remarkable. While current literature describes Auer rod-like inclusions in single cases of different forms of myeloma [1,2,3,4,5], this is, to the best of our knowledge, the first report on the concomitant appearance with enlarged highly atypical "owl-eyed" plasma cells in a patient suffering from κ-type light chain myeloma. However, the prognostic value of this unusual plasma cell phenotype remains unclear.

References

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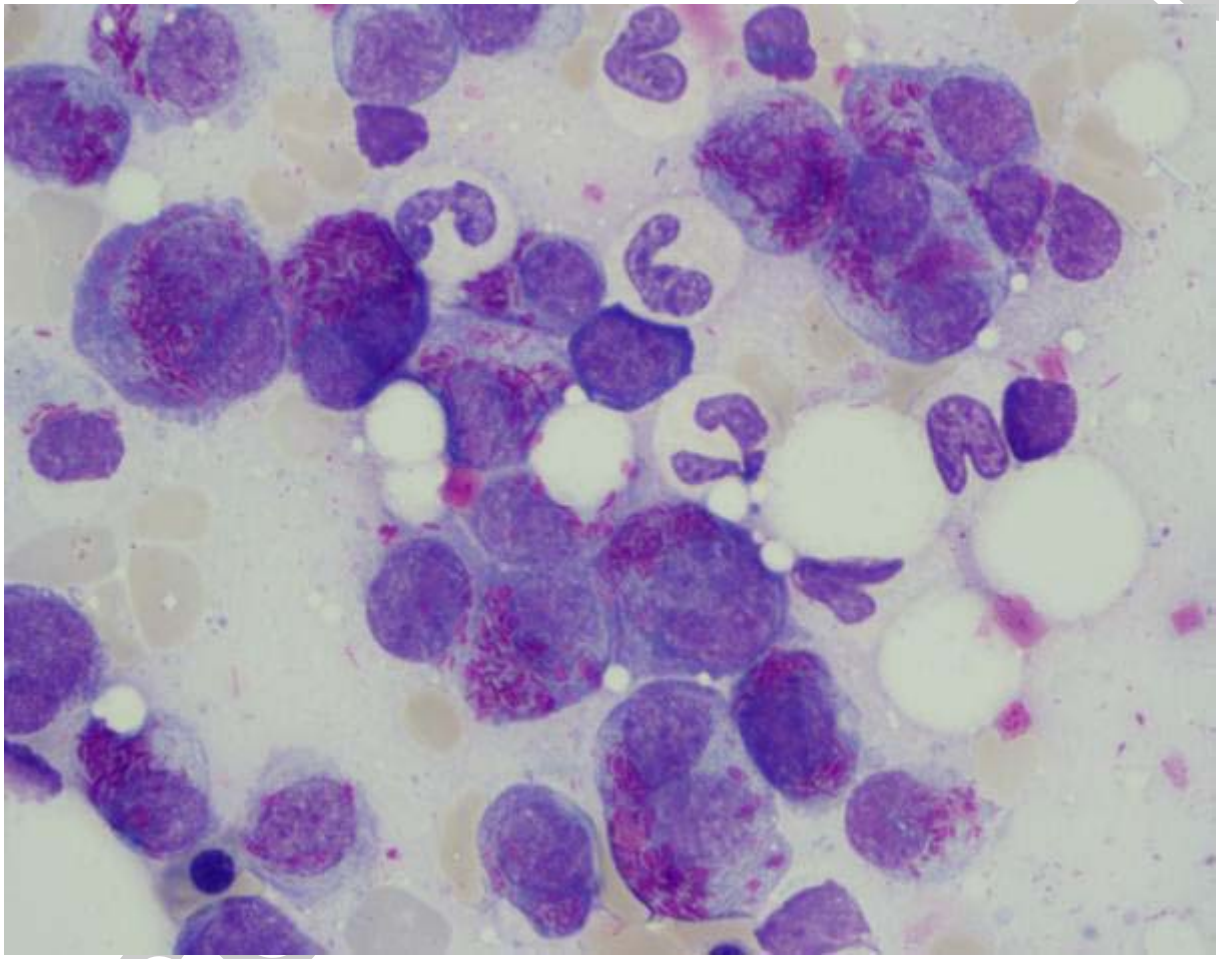
A



B

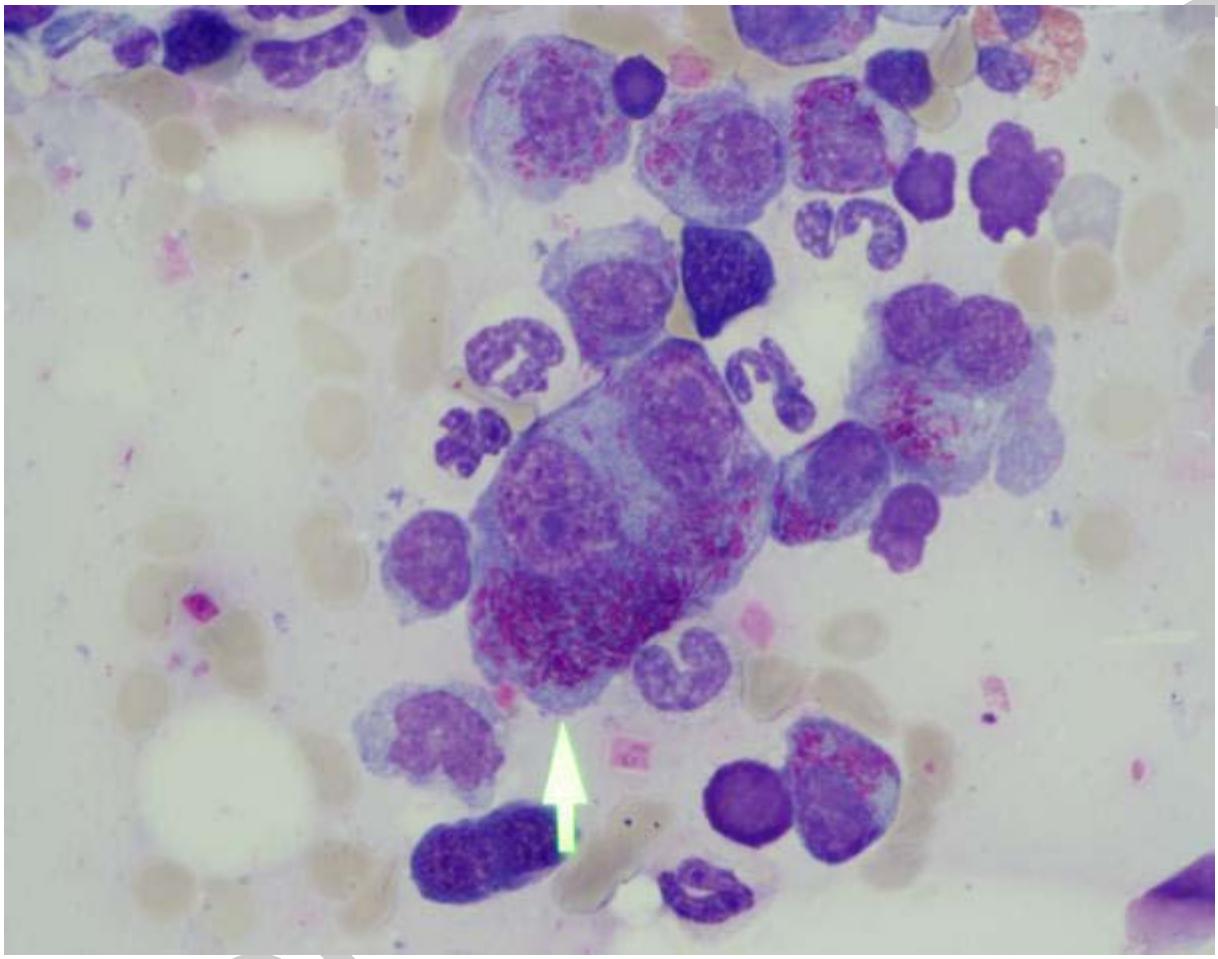


Figure 1. Bone marrow aspirate smear of a 73-year old patient with κ-type light chain myeloma (A and B). The arrow marks a plasmoblastic cell with massive Auer rod-like inclusions.