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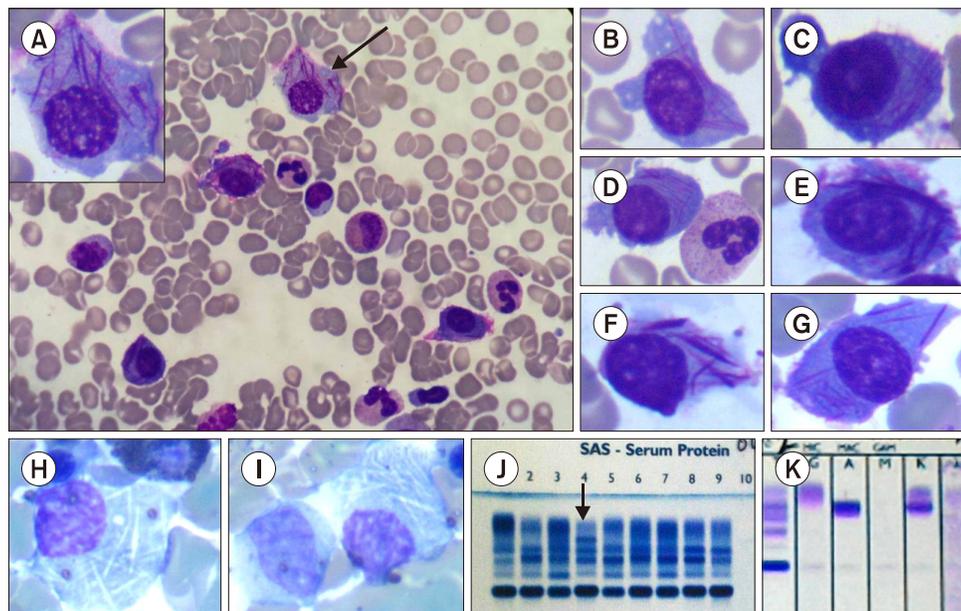
Plasma cells with Auer rod-like inclusions in a patient with myeloma

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A 56-year-old man presented with pain in his right thigh for 15 days. Spinal magnetic resonance imaging revealed a collapsed L1 vertebra prompting a workup for myeloma/metastases. His prostate-specific antigen was 0.42 $\mu\text{g/L}$. The hemoglobin was 15.2 g/dL, total leucocyte count was $7.9 \times 10^9/\text{L}$, and platelet count was $256 \times 10^9/\text{L}$. Bone marrow aspirate revealed 11% plasma cells showing multiple Auer rod-like long inclusions (Wright-Geimsa stain; **A**, $\times 400$, inset and panels, **B–G**, $\times 1,000$). We performed myeloperoxidase staining, which was negative (Panel **H**, **I**, myeloperoxidase stain $\times 1,000$). Congenital myeloperoxidase deficiency was excluded. Bone marrow immunophenotyping revealed 2.3% plasma cells on CD138-CD38 gating. Abnormal to normal plasma cell ratio was 0.98 and malignant plasma cells were CD45- and CD19-negative, kappa restricted, and positive for CD56, CD117, and CD28. CD20 was negative. Plasma cell-directed fluorescence-in-situ hybridization could not be done due to financial constraints. Total protein was 6.9 g/dL with albumin of 4.0 g/dL and globulins of 2.9 g/dL. A:G ratio was 1.41. Serum creatinine and calcium were normal. Serum protein electrophoresis (**J**, lane 4) showed a monoclonal band in early gamma region amounting to 0.65 g/dL. This monoclonal band was IgAk on serum immunofixation electrophoresis (Panel **K**). However, vertebral biopsy showed only chronic inflammation. There were no other lytic lesions. The case was classified as smoldering multiple myeloma with Auer rod-like inclusions in plasma cells.