

# Images of Hematology

Blood Research Educational Material

BLOOD RESEARCH

Volume 56 • Number 3 • September 2021

<https://doi.org/10.5045/br.2021.2021051>

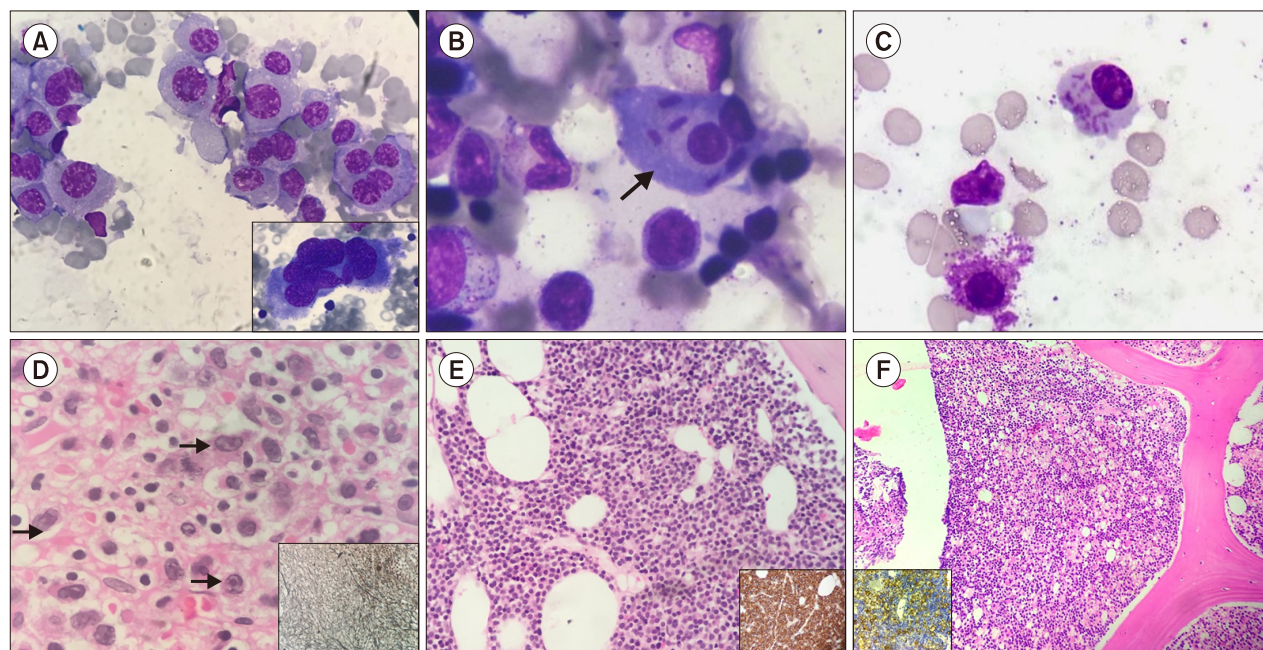
## Plasma cells in disguise: the masquerader in hematopathology

Richa Juneja<sup>1</sup>, Karthika Kundil Veetil<sup>2</sup>, Haraprasad Pati<sup>2</sup>

<sup>1</sup>Department of Pathology, All India Institute of Medical Science, Nagpur, <sup>2</sup>Department of Hematology, All India Institute of Medical Science, New Delhi, India

Received on March 4, 2021; Revised on April 5, 2021; Accepted on July 8, 2021

**Correspondence to** Richa Juneja, D.M., Department of Pathology, All India Institute of Medical Science, 309, Near VMV College, Wardhaman Nagar, Nagpur 440008, India, E-mail: [drrichajuneja@gmail.com](mailto:drrichajuneja@gmail.com)



Six challenging morphological variants of plasma cells were identified in various plasma cell neoplasm and confirmed with flow cytometric immunophenotyping or immunohistochemistry. (A) Multinucleated plasma cells, with few resembling a megakaryocyte, in Jenner-Giemsa-stained bone marrow aspirate in an “anaplastic variant” of myeloma ( $\times 40$ ). Inset shows a bizarre plasma cell ( $\times 100$ ). Classical binucleate plasma cell with thick rod-like inclusion in a smear (B,  $\times 100$ ). A case of MGUS with intracytoplasmic coarse azurophilic Snapper-Schneid granules in plasma cells (C,  $\times 100$ ). In a case with a dry tap, bone marrow biopsy specimen shows large plasma cells with moderate cytoplasm, irregular nuclei with chromatin remodeling and prominent nucleoli (arrow) in a dense fibrotic marrow. Positive staining for CD138 and kappa restriction confirmed a diagnosis of plasmablastic myeloma (D,  $\times 40$ ). Bone marrow biopsy revealed sheet-like arrangement of small cells with scanty cytoplasm that mimic a lymphoma in a “small cell variant” (E,  $\times 20$ ); inset shows CD138-positive staining of all cells with aberrant CD20 positivity and CD45 negativity; FISH showed t(11:14). Bone marrow biopsy specimen showed a histiocytic variant of large plasma cells with abundant pale cytoplasm among classical small lymphoid cells in lymphoplasmacytic lymphoma ( $\times 20$ ); inset shows CD138 positivity and lambda restriction (F).