Interpreting circulating immature plasma cells in plasma cell leukemia using 5 part differential cell counter

Nishit Kumar Gupta
Nishit Clinical Laboratory Pvt. Ltd., India

Circulating plasma cells are not a common finding in multiple myeloma. Being able to detect plasma cells in peripheral blood is important as they are a prognostic indicator that correlates with disease progression. The peripheral blood sampling (EDTA whole blood) in LH750 Beckman Coulter can help us isolating and assist us in identifying circulating immature plasma cells in the human body. These plasma cells are subject to variations in morphology on slides and can be easily missed. It is understood that plasmablasts and proplasmacytes are known to have aggressive course with poor prognosis. My retrospective study of two patients using LH750 Beckman Coulter demonstrated and identified isolated group of (event) circulating plasma cells on histograms. Using white blood cell differential scatter plot to study the cases identified a unique pattern and distinct cellular characteristics of plasma cells. This distinct pattern helped us in our laboratory to identify the circulating immature plasma cells in the blood. We have studied this finding retrospectively to use it as flagging for future index new patients. By using this review policy, the laboratory can review and screen the plasma cell leukemia patients in a better way.

Biography
Nishit Kumar Gupta is a practicing Pathologist by profession running his own private pathology diagnostic laboratory: Nishit Clinical Laboratory Pvt. Ltd. He has completed his graduation from Meerut University and Post-graduation from JNMC Belgaum. He has been to NIMHANS, Bangalore for short training in Neuropathology with special inclination for hematology disorders specially Hemato oncology and coagulation disorders and with sub specialization in dermatopathology. He has learning and research interest in hematology automated counters for interpretation of RPD, histograms and Scattergrams. He is continuously associated in various teaching programs for FMG and PG entrance coaching.

nishitlab@yahoo.co.in