

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

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### Hematology-Cell Morphology – Case 13

The presence of these morphological features of granulocytic series in the bone marrow smears are characterized by hyperplasia or hypoplasia of the granulocytic series, nucleus-cytoplasmic maturation arrest, presence of pseudo-Pelger neutrophils, hypersegmented nuclei, presence of pseudonuclei (intranuclear inclusions), absent or irregular granulation, presence of pseudo-Chediak-Higashi neutrophils, increase of blast percentage, increase of abnormal promyelocytes, monocytic hyperplasia or increase of promonocytes/monocytes, monocytoid appearance of the granulocytic series cells (figures 1 to 16). In the peripheral blood parent the above mentioned anomalies and also may be present neutropenia or neutrophilia, monocytosis, hypersegmented neutrophils, agranular neutrophils, neutrophils with Dohle bodies, or

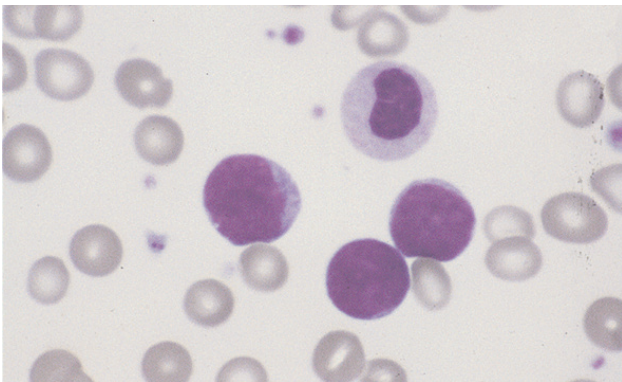


Figure 1

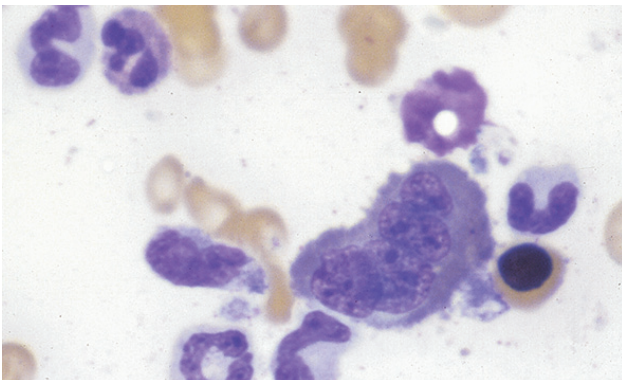


Figure 2

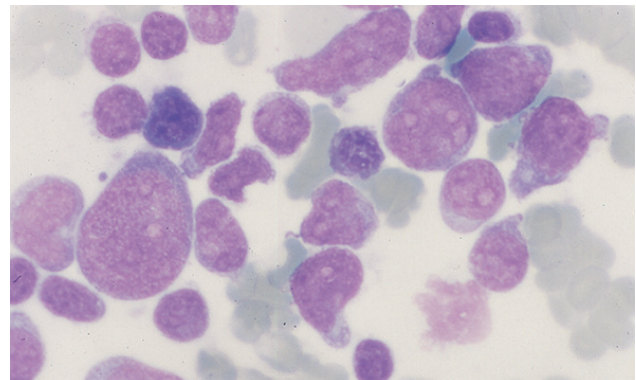


Figure 3

ARCHIVES OF HELLENIC MEDICINE 2021, 38(6):860–862  
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2021, 38(6):860–862

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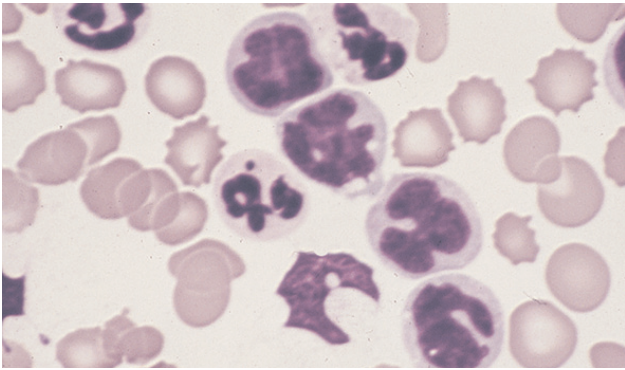


Figure 4

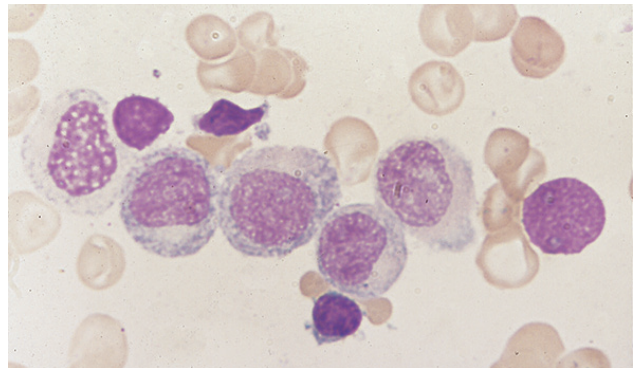


Figure 8

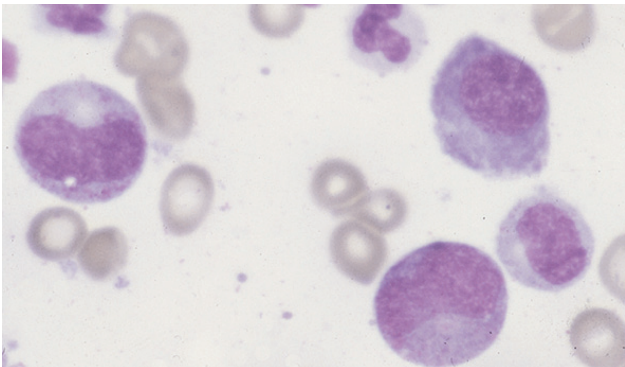


Figure 5

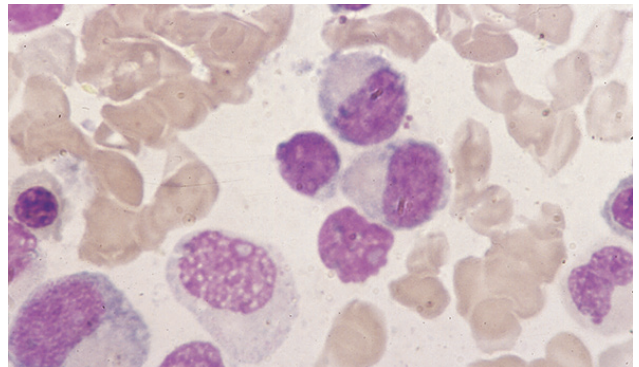


Figure 9

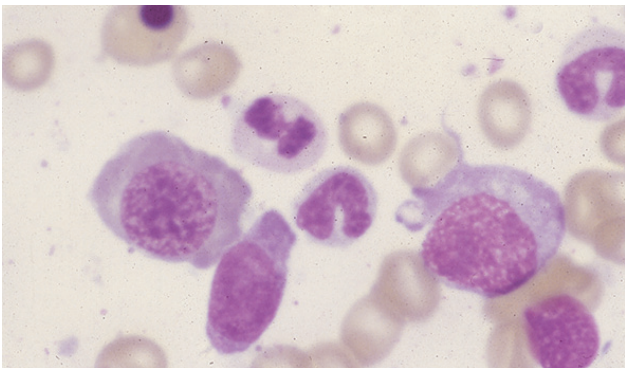


Figure 6

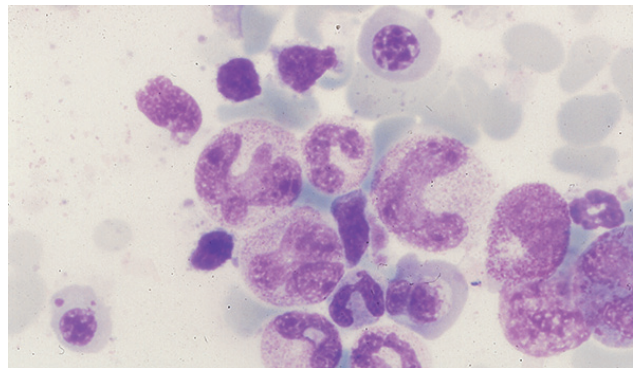


Figure 10

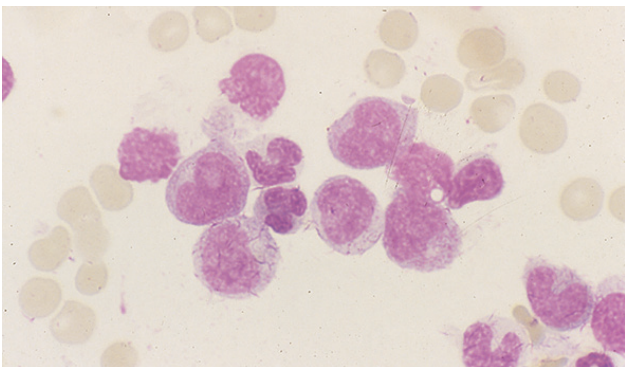


Figure 7

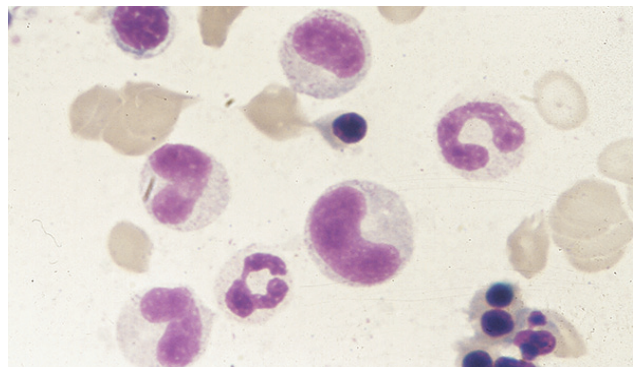


Figure 11



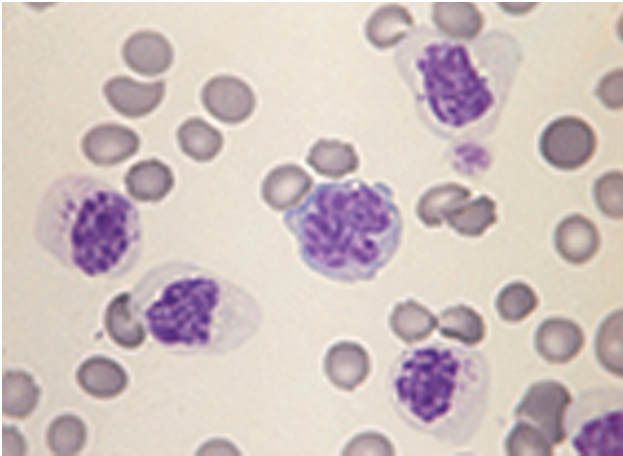


Figure 12

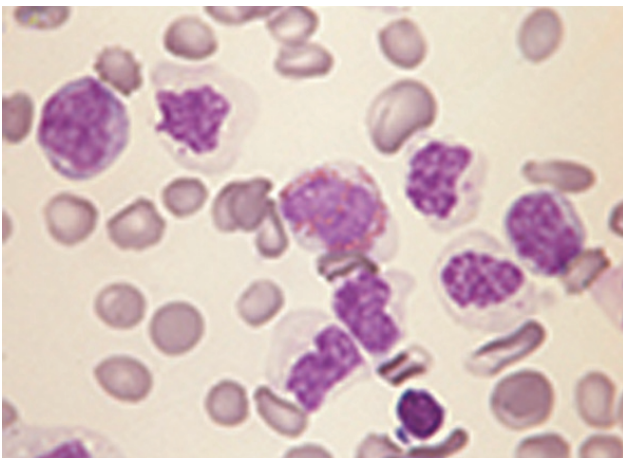


Figure 13

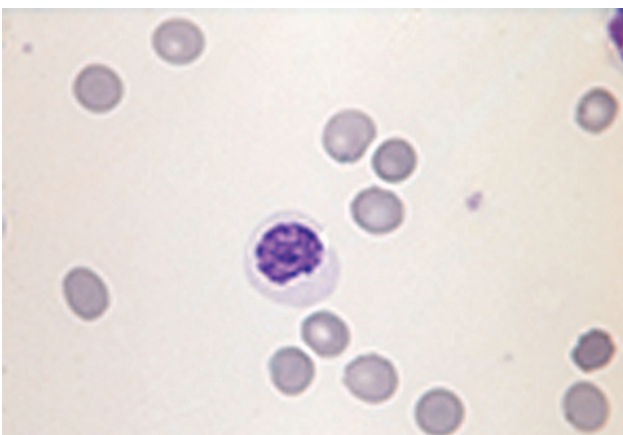


Figure 14

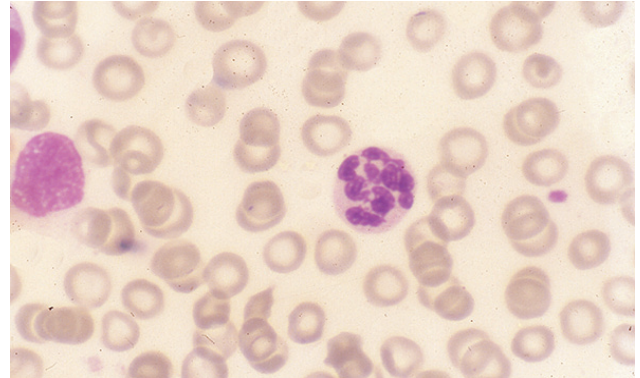


Figure 15

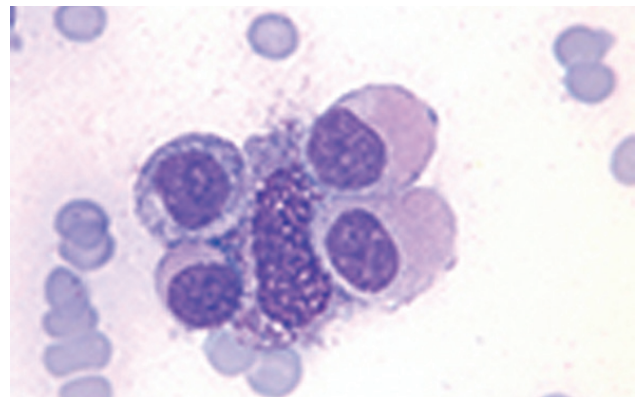


Figure 16

eosinophils with decreased granulation or containing vacuoles. In *in vitro* cultures large clusters colony growth may be present. They are present mainly in myelodysplastic syndromes, leukemias, in megaloblastic anemia, in myelophthistic anemias, following different drugs therapy reacting with DNA metabolism, in hepatic insufficiency or bone marrow infiltration by malignant cells.

## References

1. MELETIS J. *Atlas of hematology*. 3rd ed. Nireas Publ Inc, Athens, 2009:112–117

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*Cell type: Dysgranulopoiesis*