

Letter to Editor

Toxic Granulation Read as Eosinophilia!

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Coarse toxic granulation [1] is often confused by the coulter counter and read as eosinophils and thus the eosinophil [2] count is elevated!

This results in many patients having an “eosinophilia” when in actual fact the eosinophil count is normal.

Classically the granules of toxic granulation are azurophilic, (blueish) whereas the granules of eosinophils are eosinophilic (pink or reddish).

This is a common problem in the differential count of white cell counts.

Many patients will therefore have IgE levels and stools for parasites (or helminths) done unnecessarily.

Classically eosinophils are bilobed and have a pince- nez [3] formation; a bilobed neutrophil is a staff, band or stab-cell; that is a myeloid [4] cell precursor.

In spite of this the coulter- counter often makes mistakes, because of the coarse granulation.

I am not blaming Beckman-Coulter but this does happen.

Golomb, et al. [5] looked at granule size in acute promyelocytic leukemia; they took 340 nanograms using histograms to differentiate hypogranular or microgranular Acute Promyelocytic leukemia from the hypergranular form of the disorder. These two varieties differ in their tendency towards Disseminate Intravascular Coagulopathy or Consumption!

Thus granules and more particularly granule size and colour are of importance.