



**Case of the Quarter: Q3 2015**

*by Juan Rong and Xiangdong Xu*

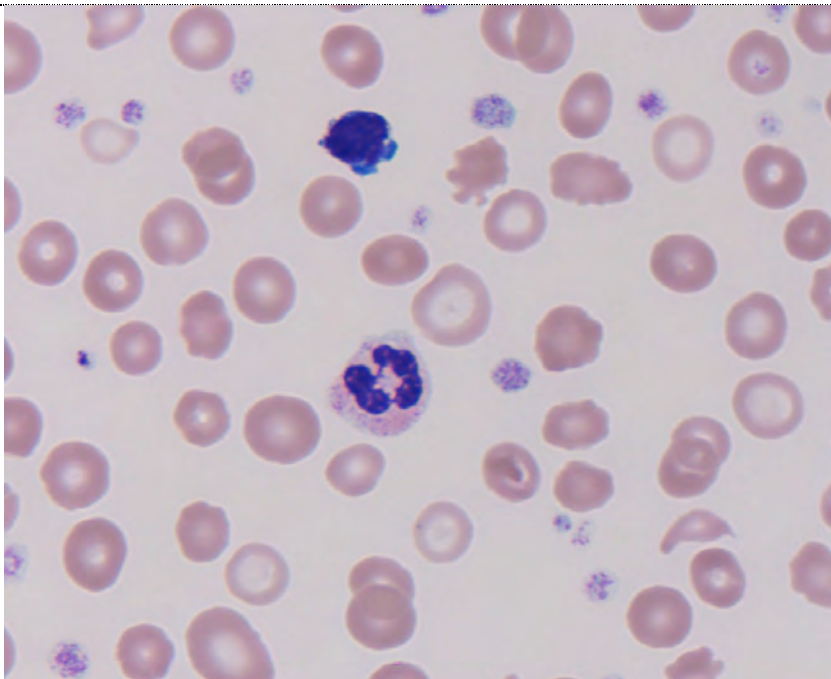
**I: Clinical History**

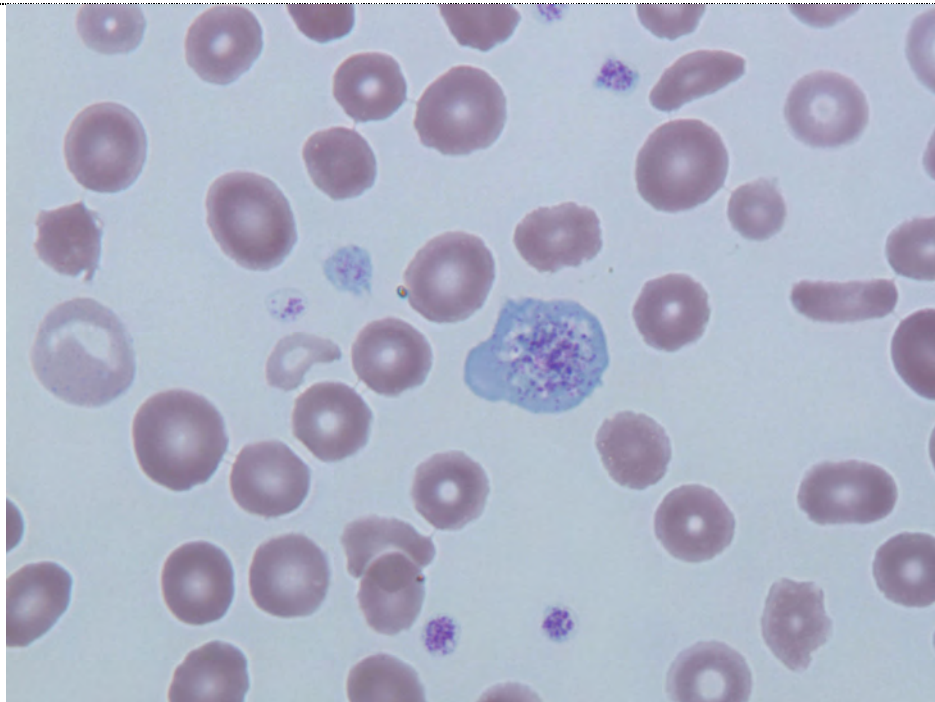
The patient was a 78 year old male with prior history of COPD and macrocytic anemia since 2009. He was found to have worsening anemia and thrombocytosis.

**CBC:** WBC 11.2 K/uL, RBC 2.05 M/uL, Hgb 6.5 g/dL, MCV 96.1 fL, RDW 28.4%, Plt 441 K/uL. Automated differential (%): neutrophils 58.9, lymphocytes 21.4, monocytes 8.8, eosinophils 6.6; and basophils 4.0.

**III: Microscopic Findings:**

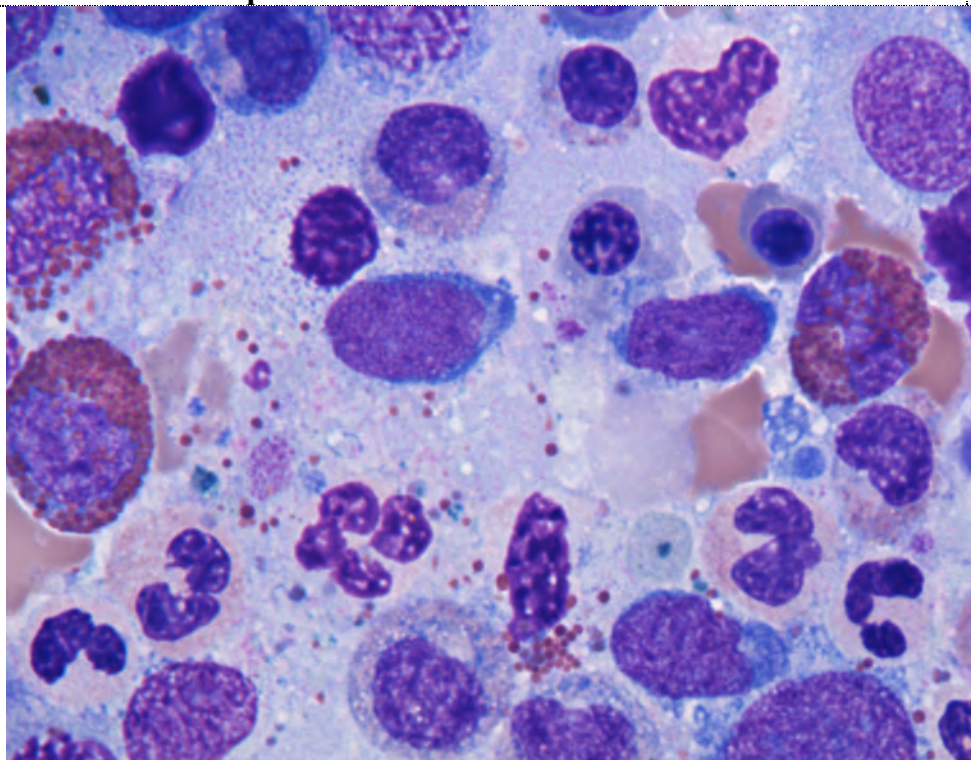
**Peripheral blood smear:**





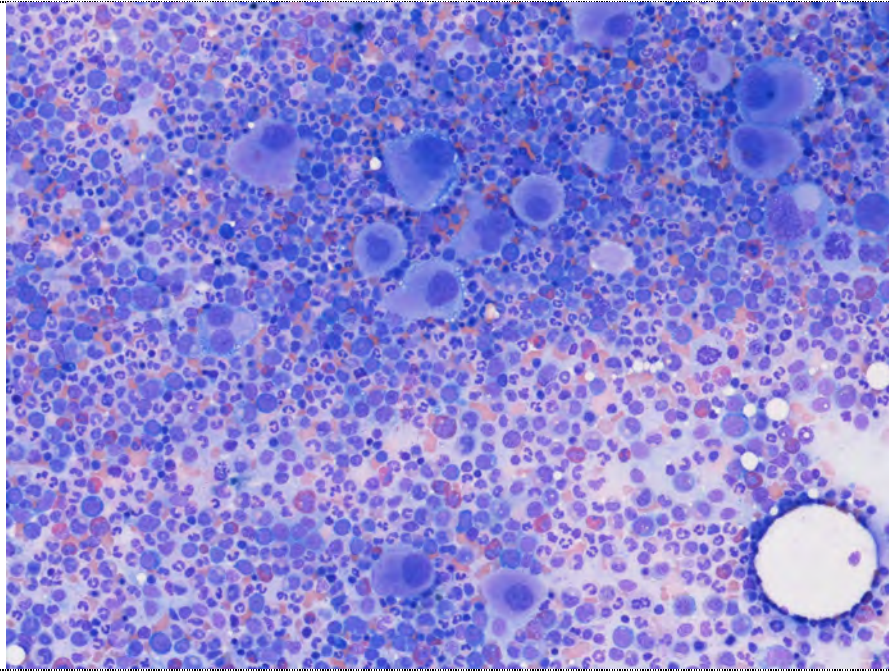
Giant platelet

**Bone marrow aspirate:**

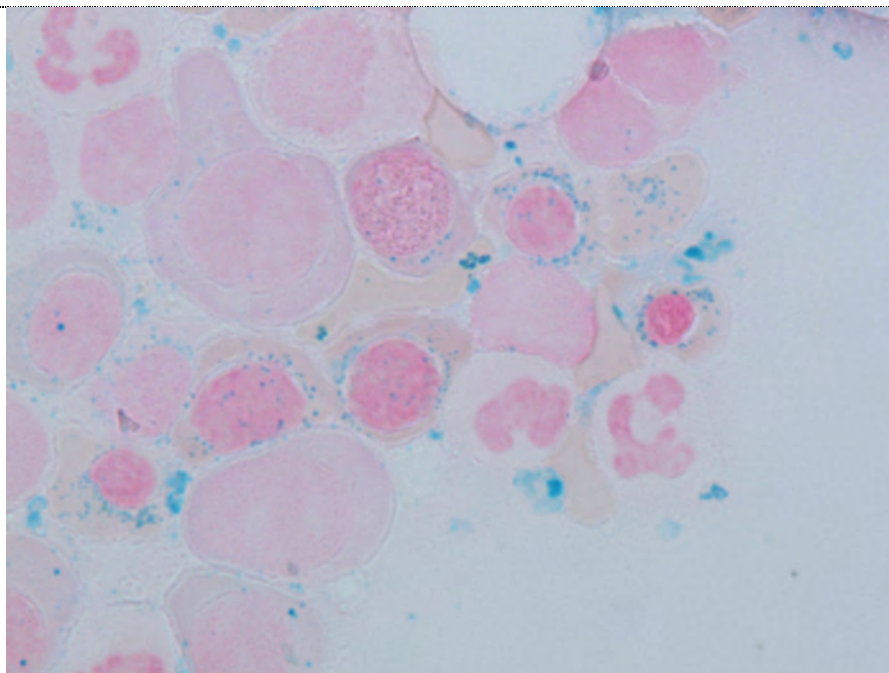


Scattered immature precursors

200-cell differential count(%):  
blasts 5, maturing myeloids 46, eosinophils 6, plasma cells 2, lymphocytes 10, erythroids 31.

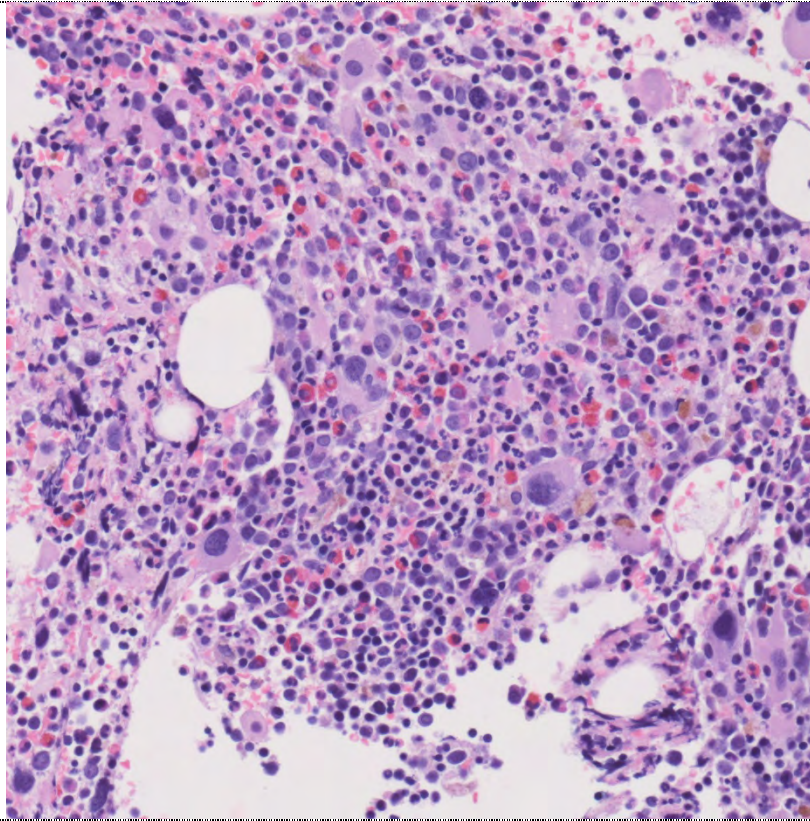


Increased number of megakaryocytes with many non-lobated and hypolobated nuclei.

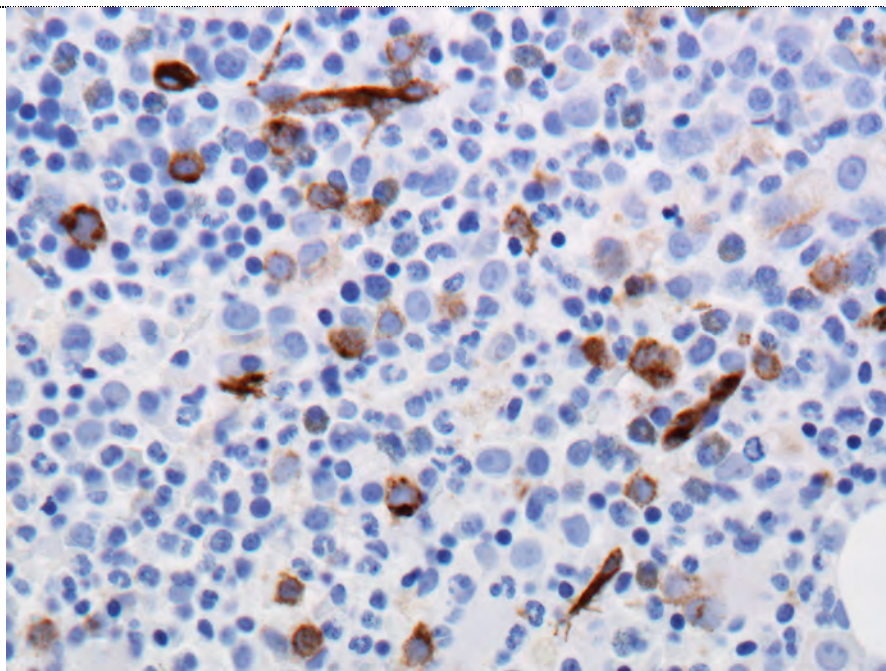


Iron stain: Increase of ring sideroblasts

**Bone marrow core**



#### IV: Immunohistochemistry



CD34 IHC on core biopsy



**V: Cytogenetics:**

Karyotype: 46,XY,del(5)(q22q33)[20]

FISH for MDS: del(5q) in 86% of cells. No other abnormalities detected