



Case of the Quarter: Q4 2015

Juan Rong and X. Frank Zhao

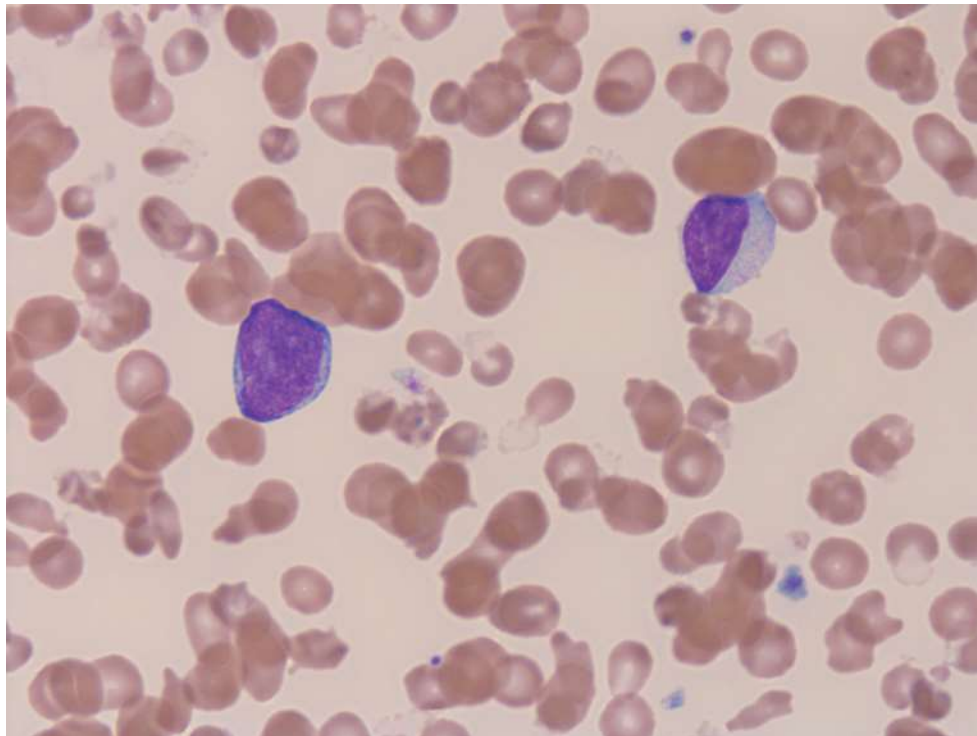
I: Clinical History

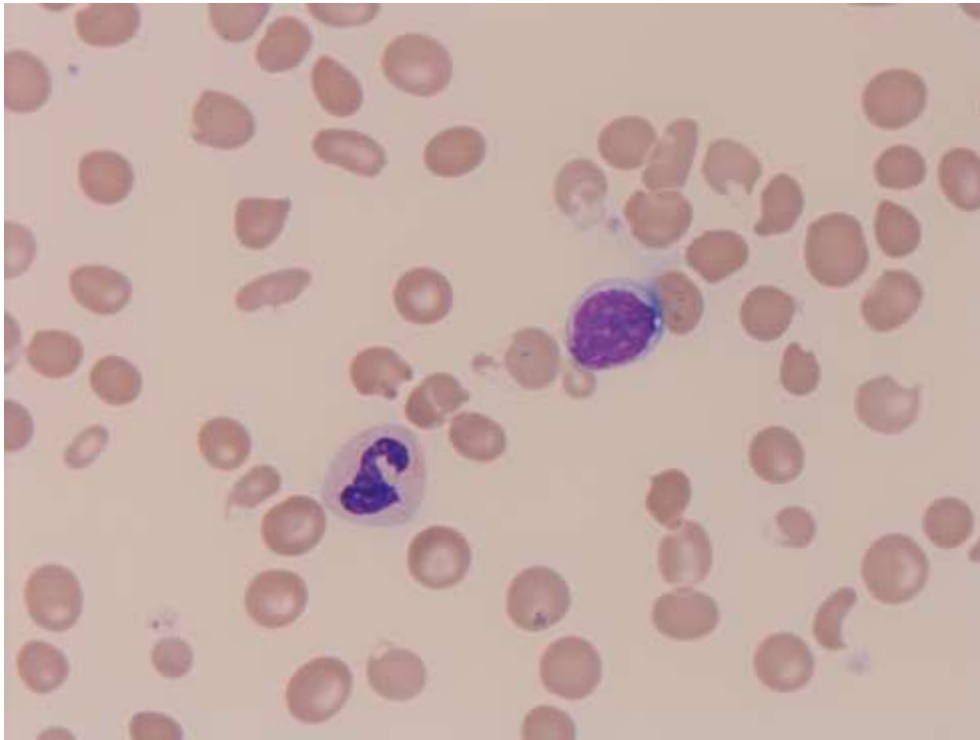
The patient is a 90 year old male with a past medical history significant for prostate cancer diagnosed in 2002, status post radiation therapy and now on leuprolide. He is referred by primary care physician for pancytopenia.

CBC: WBC 3.0 K/ μ L; RBC 2.75 M/ μ L; Hgb 7.3g/dL; Hct 25.8%; MCV 93 fL; Plt 59 K/ μ L.
Differential (%): segmented neutrophil 40; lymphocytes 26; monocytes 4.8; eosinophils 3.8; basophil 1.0.

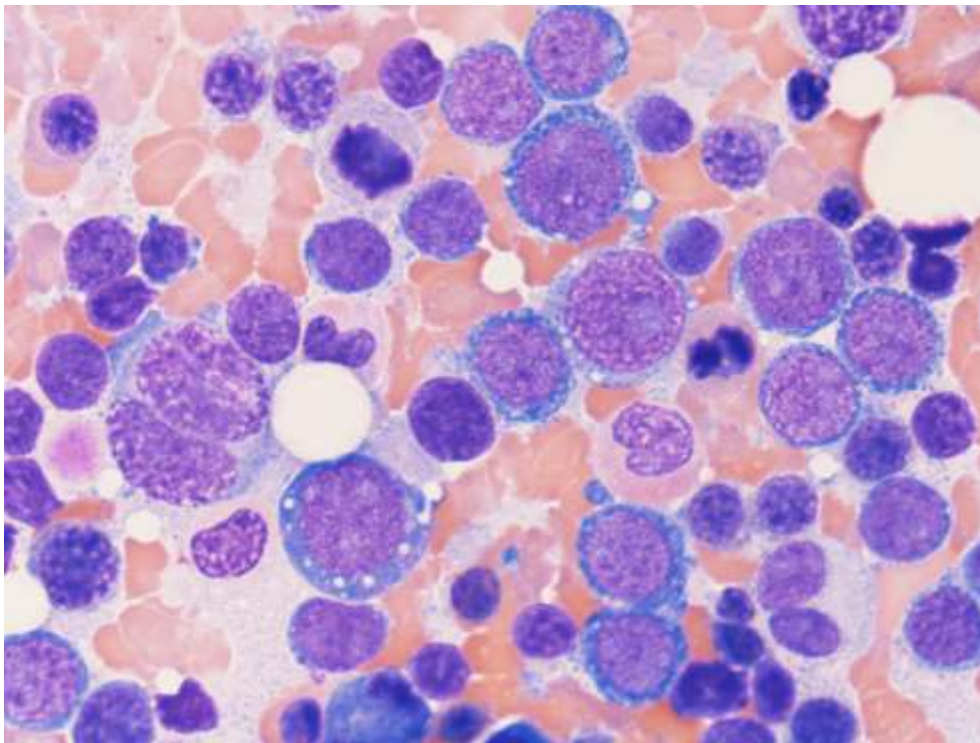
II: Morphology:

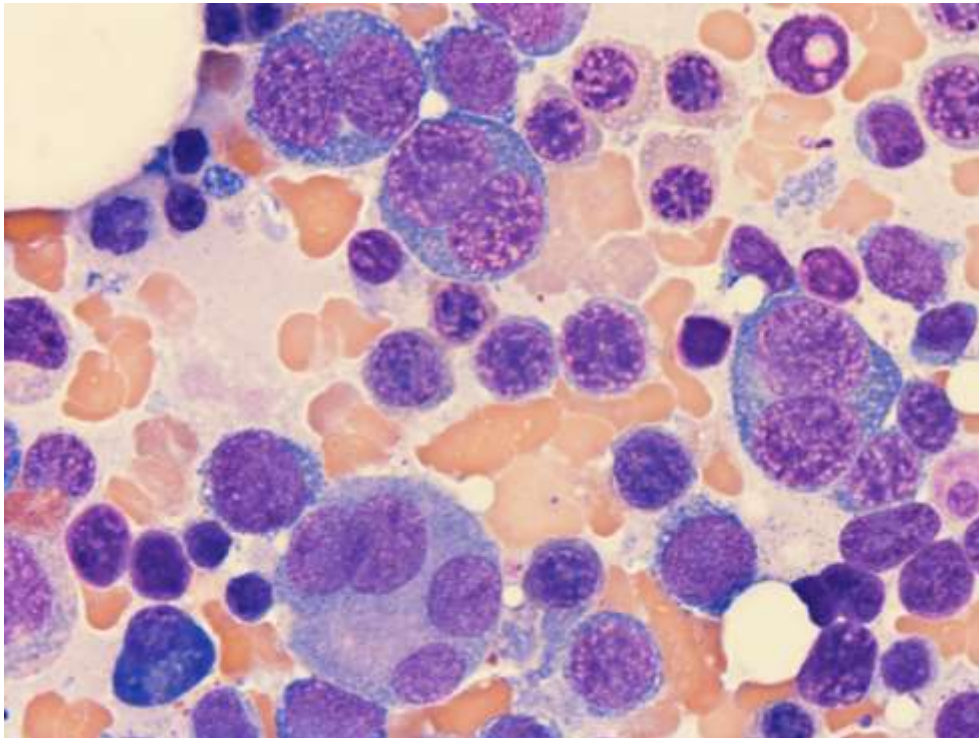
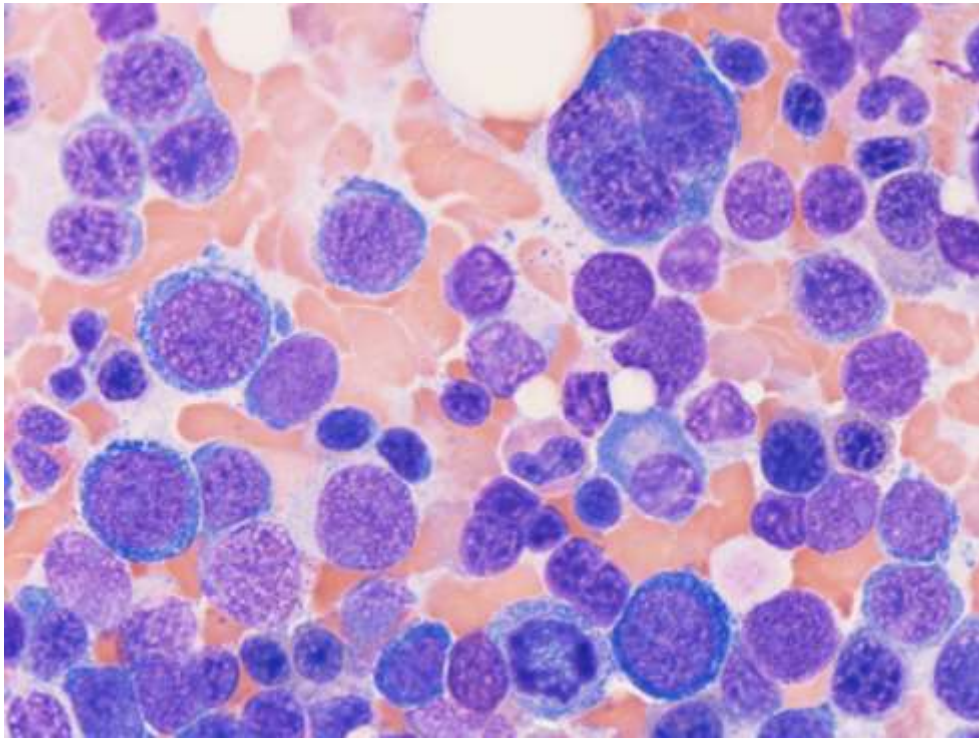
Peripheral blood smear: (Wright-Giemsa stain 1000x)

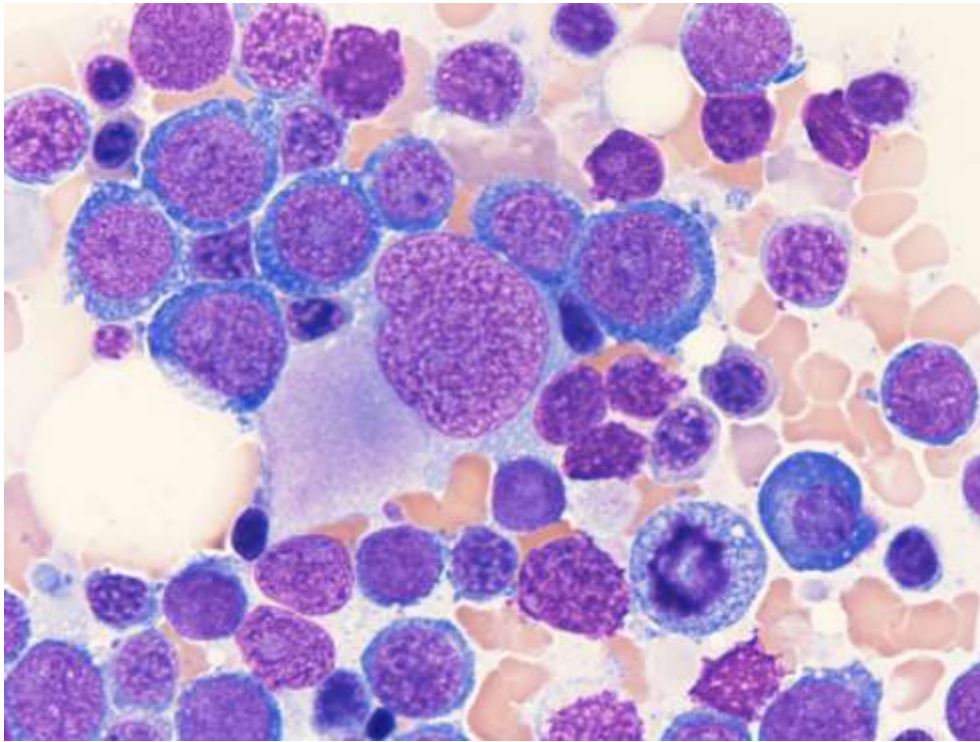




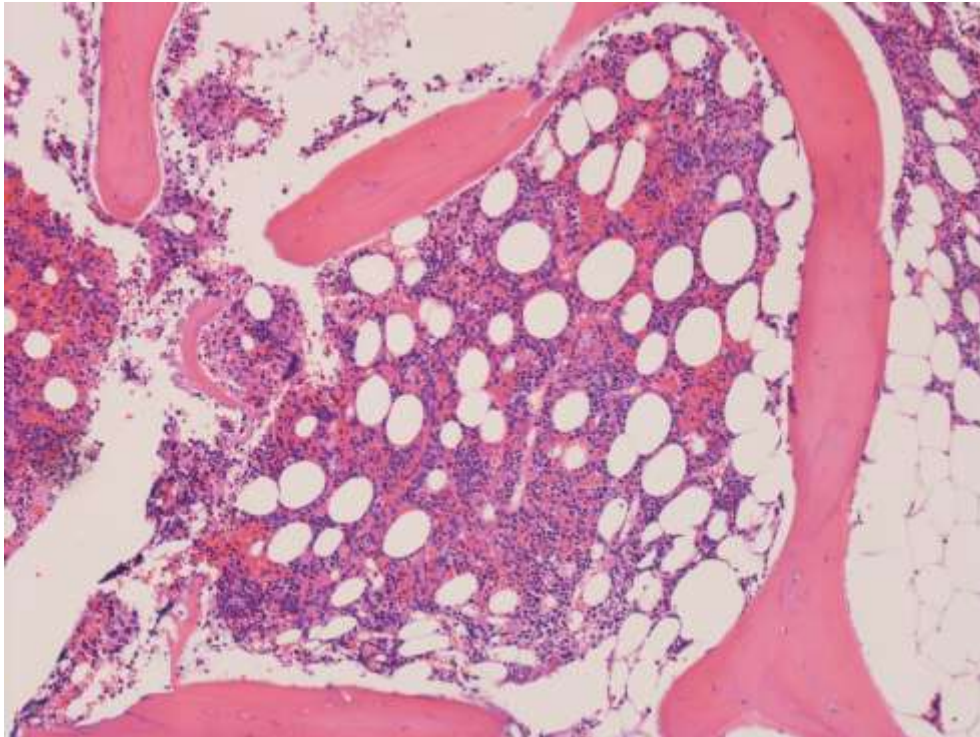
Bone marrow aspirate smear: (Wright-Giemsa stain 1000x)







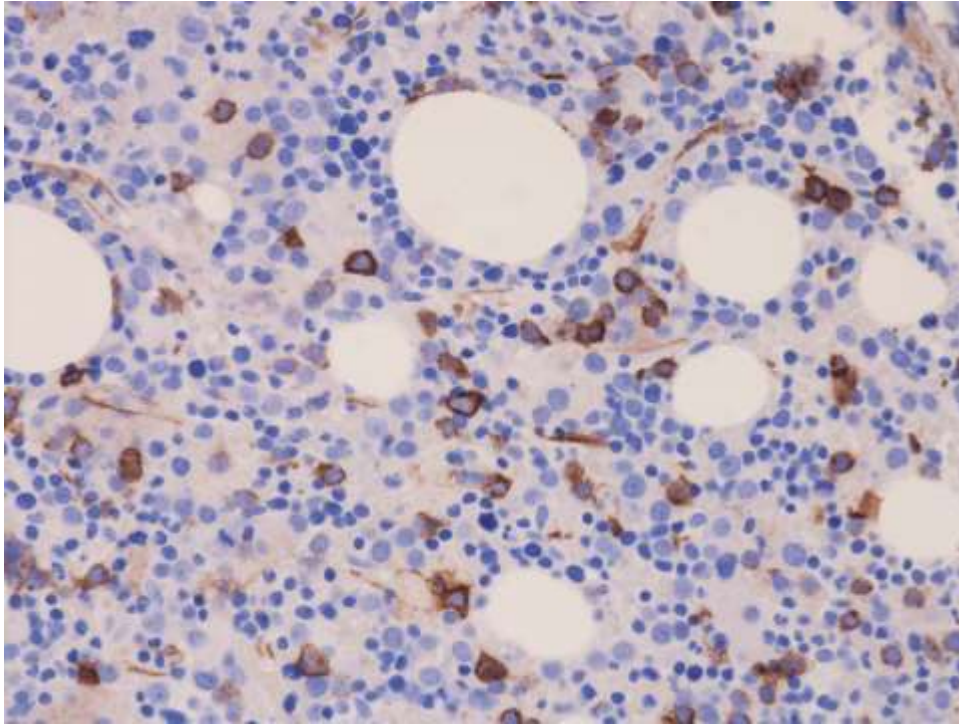
Bone marrow biopsy (H&E, 200x)



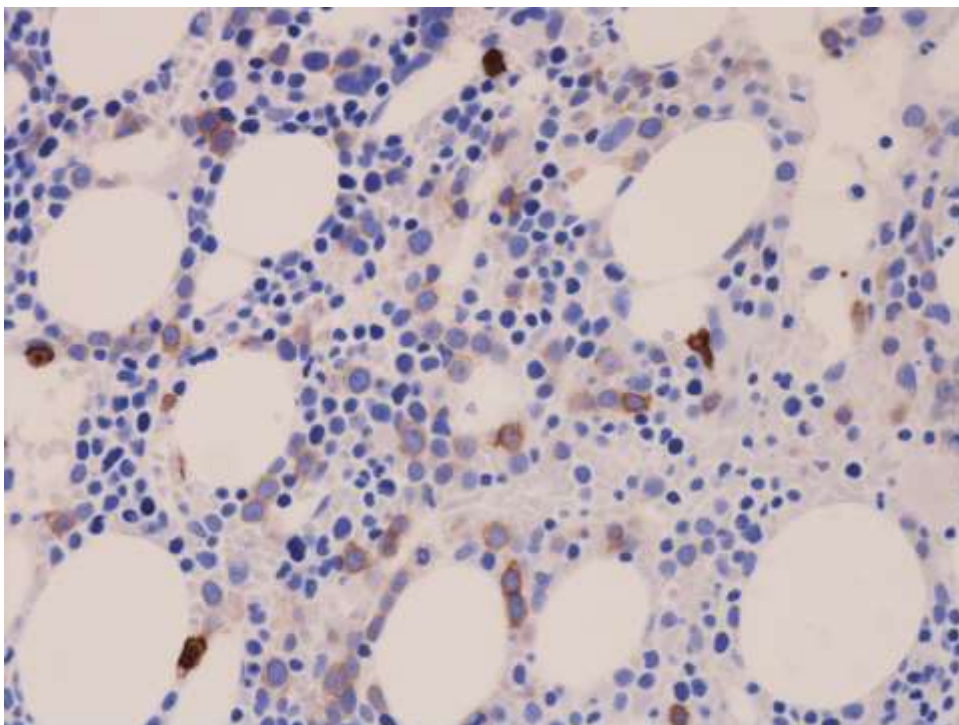


III: Immunohistochemistry:

CD34 (400x)

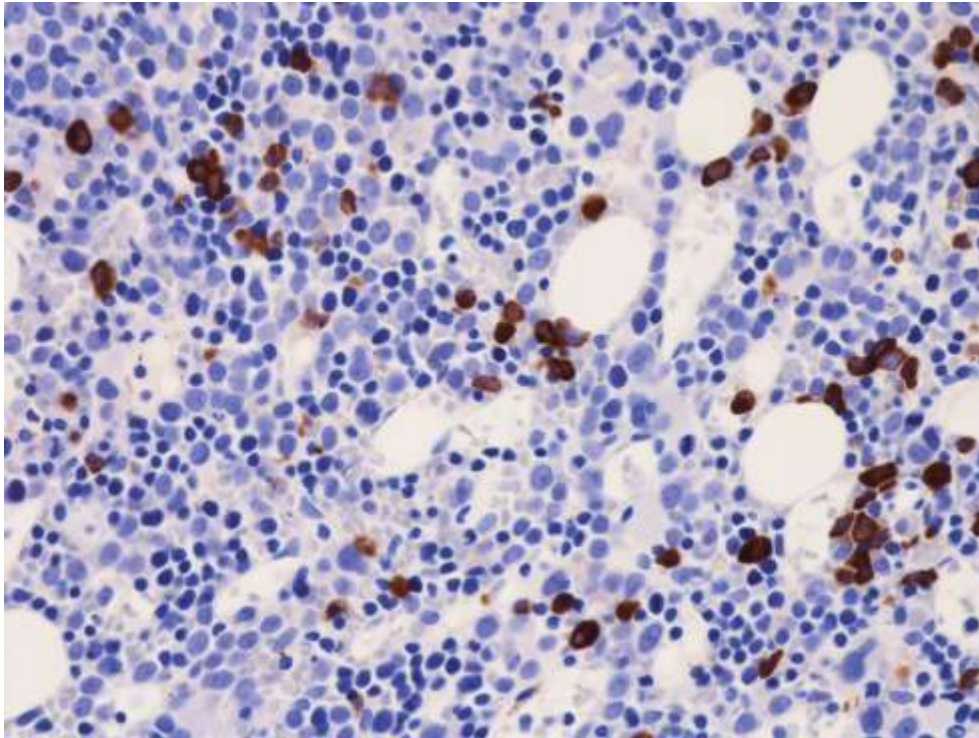


CD117 (400x)

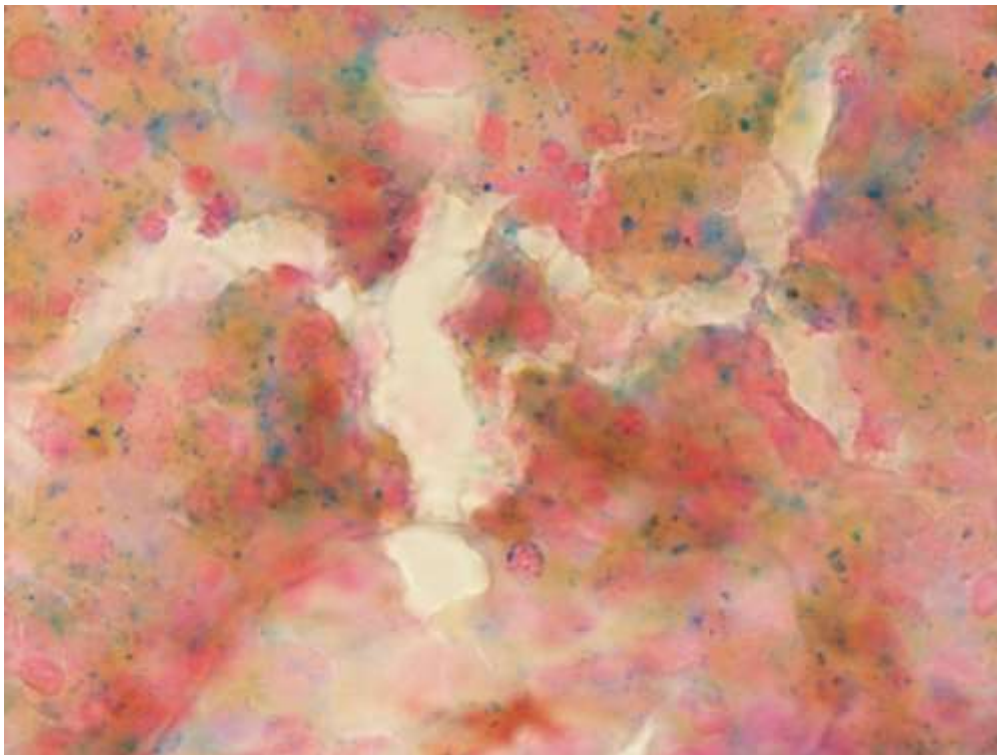




MPO (400x)



Iron stain (1000x)





IV: Other Ancillary Studies:

Flow cytometry reveals approximately 9% blasts that are CD34+ and CD117+.

FISH studies: del(5q) 86.5%; del(7q) 74%; del(7) 14.5%; +8 77%, +20q12 55.5%.

V. What's Your Diagnosis?