



Case of the Quarter: Q2-2017

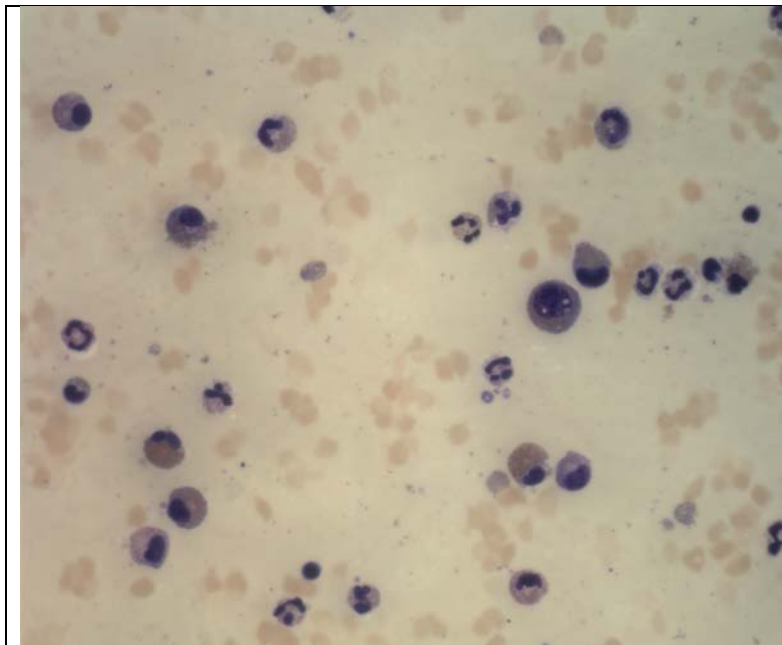
I: Clinical History

45-year-old man has leukocytosis and splenomegaly. A recent FISH study of PB was negative for t(9;22).

CBC: Hb 9.4 g/dL, MCV 98.3 fL, MCHC 30.5 g/dL, WBC 31,200/uL (N35, L11, M6, E12, B2), platelet 178k/uL.

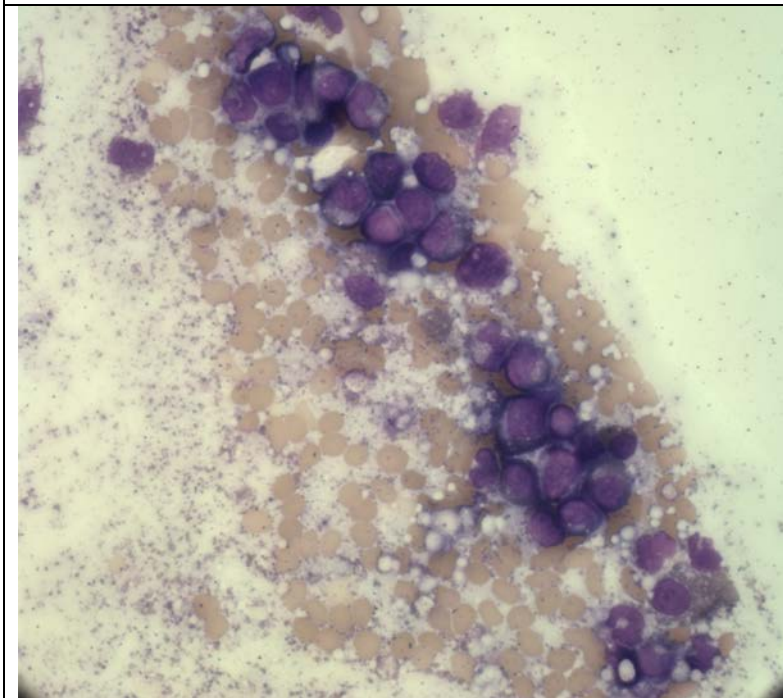
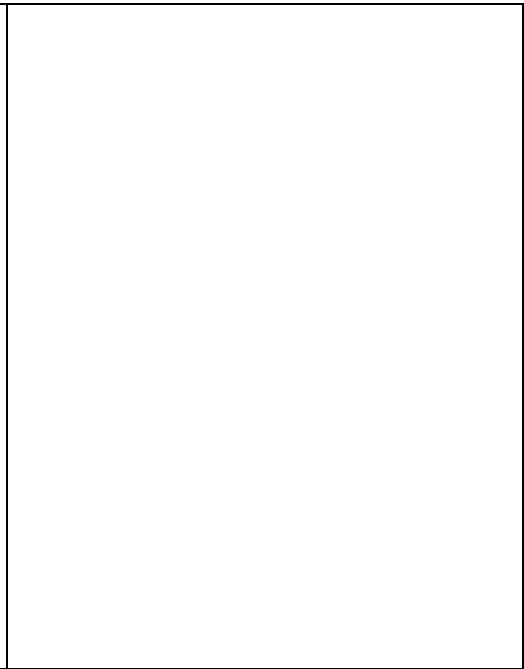
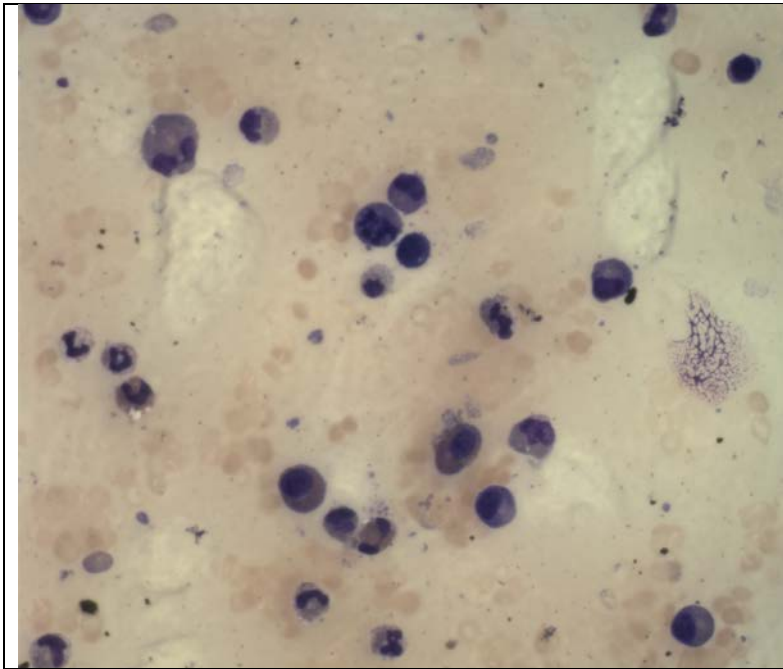
II: Gross Findings - N/A

III: Microscopic Findings

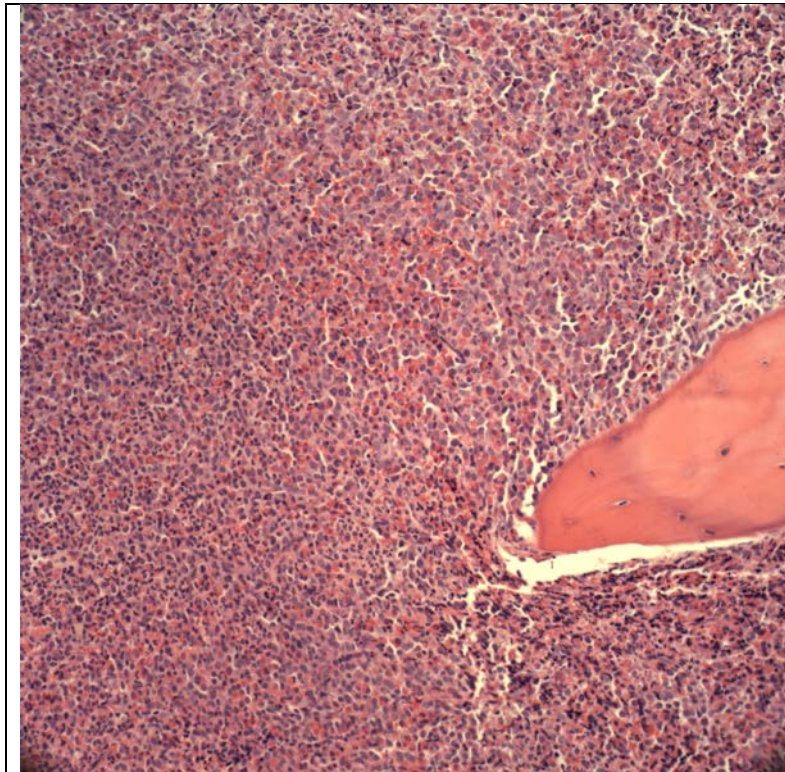


Aspirate: aparticulate with left-shifted myeloid maturation;

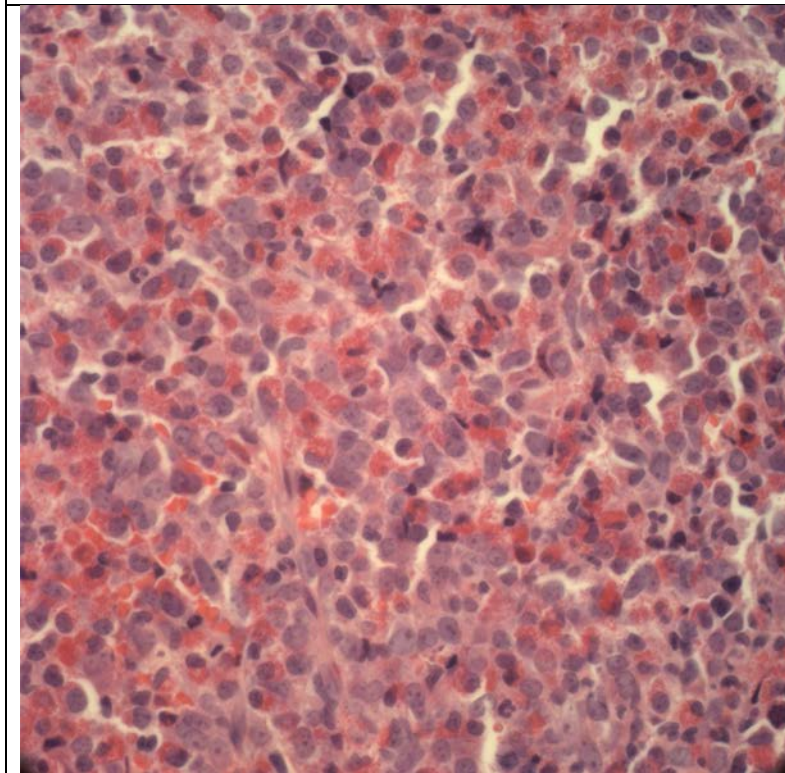
3% blasts,
11% promyelocytes,
26% myelocytes,
3% eosinophils



Touch Prep



BM biopsy

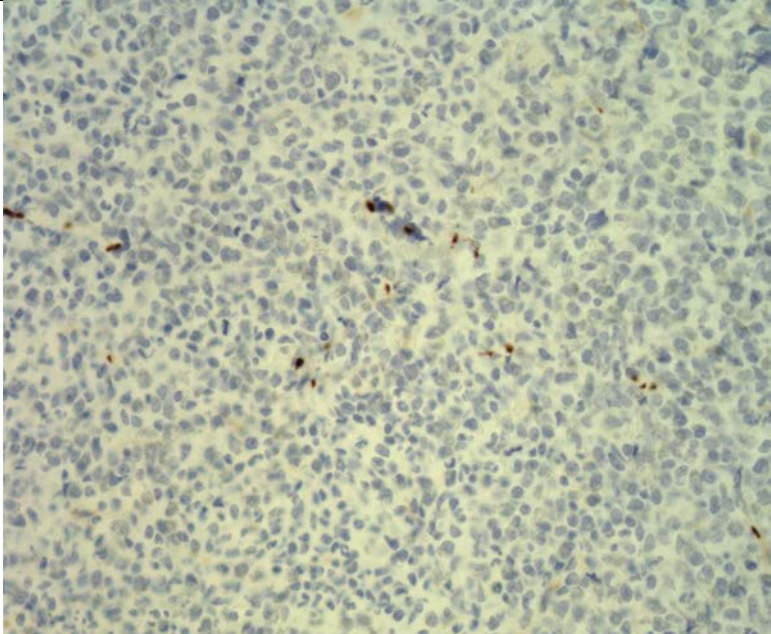
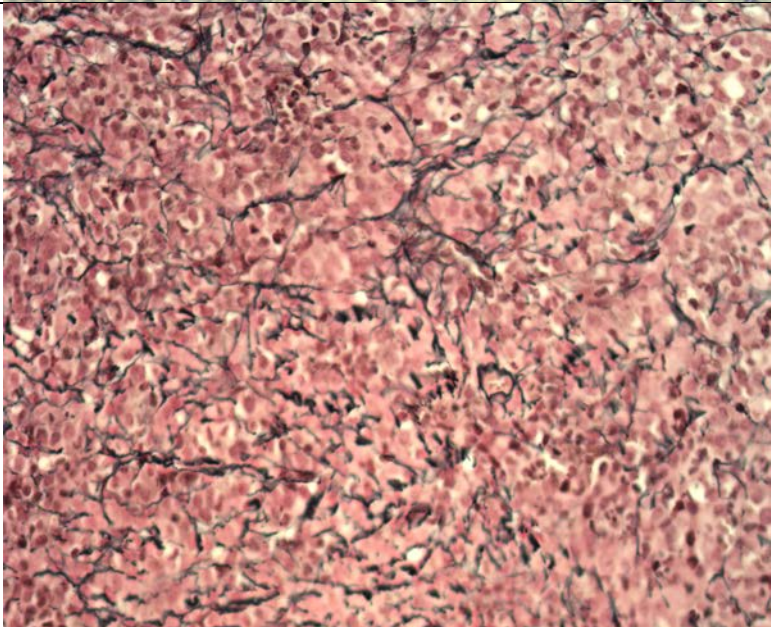




IV: Immunohistochemistry & Special stain

A photomicrograph showing a tissue section stained for CD34. The image displays numerous brown-stained, elongated structures, likely representing increased vasculature, against a background of blue-stained nuclei.	<p>CD34: increased vasculature</p>
A photomicrograph showing a tissue section stained for Myeloperoxidase (MPO). The image displays a dense population of brown-stained cells, indicating myeloid hyperplasia.	<p>MPO: reveals myeloid hyperplasia</p>



		CD61: megakaryocytic hypoplasia
		Reticulin: reticulin fibrosis

V: Flow cytometry:

Myeloid hyperplasia with left - shifted maturation and increased promyelocytes.

VI: Cytogenetics/Molecular Studies



	<p>Karyotyping 47;XY,+8[4]/46;XY[16]</p>
	<p>FISH trisomy 8 (26%); FIP1L1-PDGFR fusion</p> <p>(FIP1L1-PDGFR fusion is indicated by the isolated deletion of LNX with retention of the flanking SCFD2 and PDGFRA probes.)</p>

Other results: No JAK-2 mutation (V617F, exon 12, or exon 13); No CALR mutation