

Hematology Case Conference

6/24/03

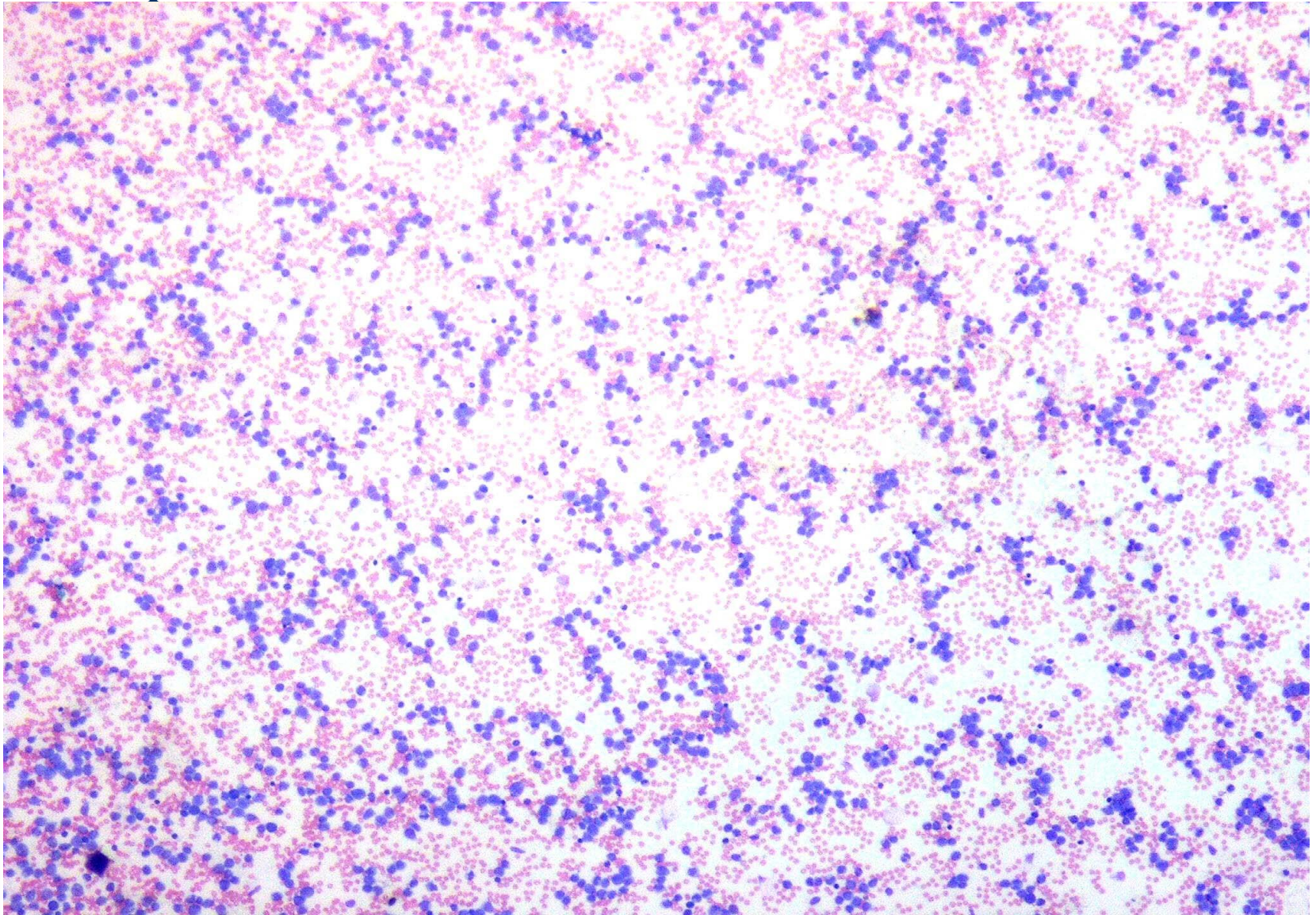


Bone Marrow Case

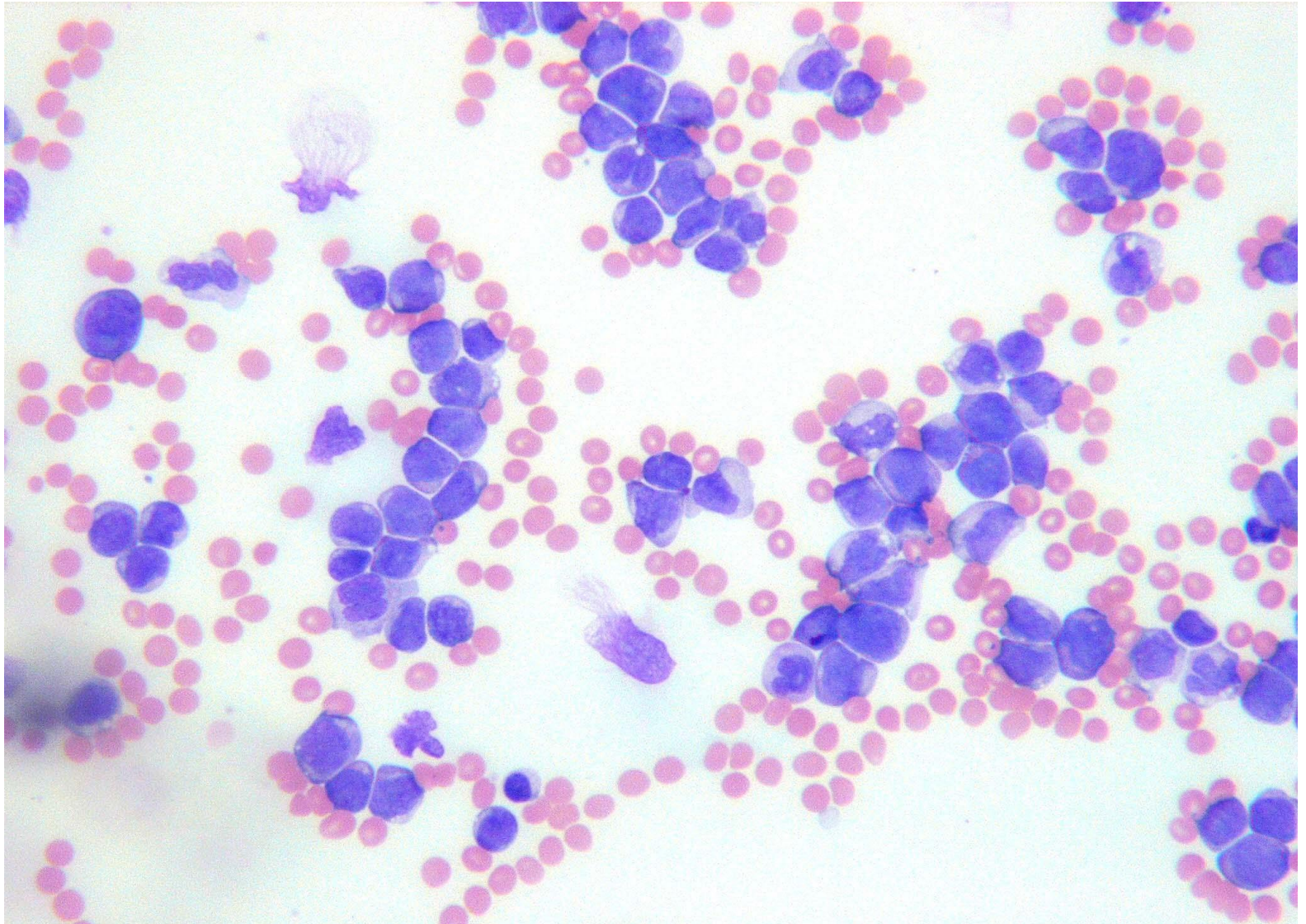
Patient: Erixxx Avaxxx

- 20 year old Hispanic male seen at Matagoda County Hospital with right sided weakness, dizziness, and blurred vision. Patient developed resp distress, was intubated. WBC showed > 100 with many blasts. Patient was transferred to Hermann
- WBC= 390, Hgb=9.0, Plt=20
80% blasts
- PT 15.6, PTT 37.6, FSP 10, normal Fibrinogen, TT
- Head CT: hemorrhagic lesions

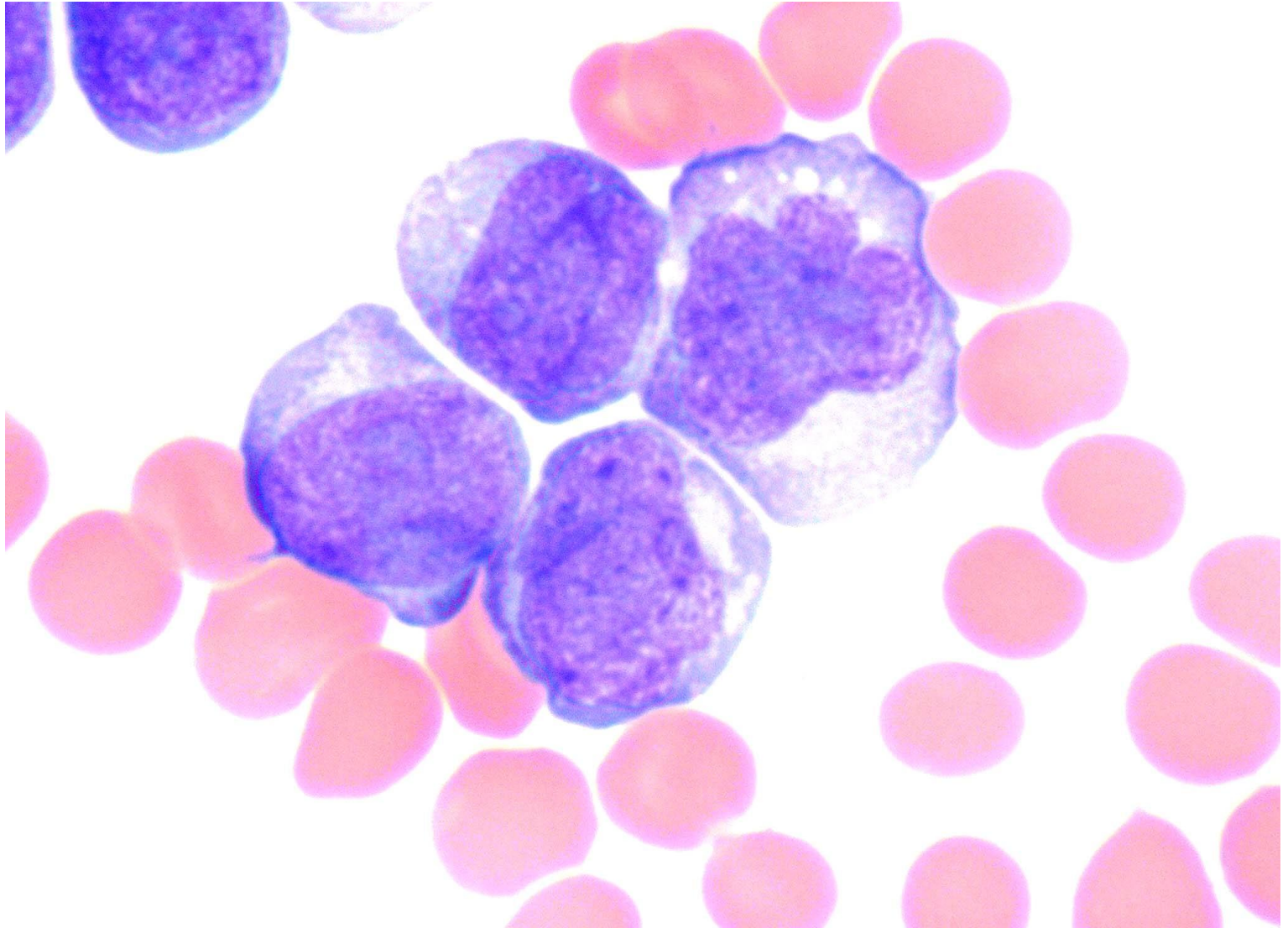
Peripheral Blood Smear



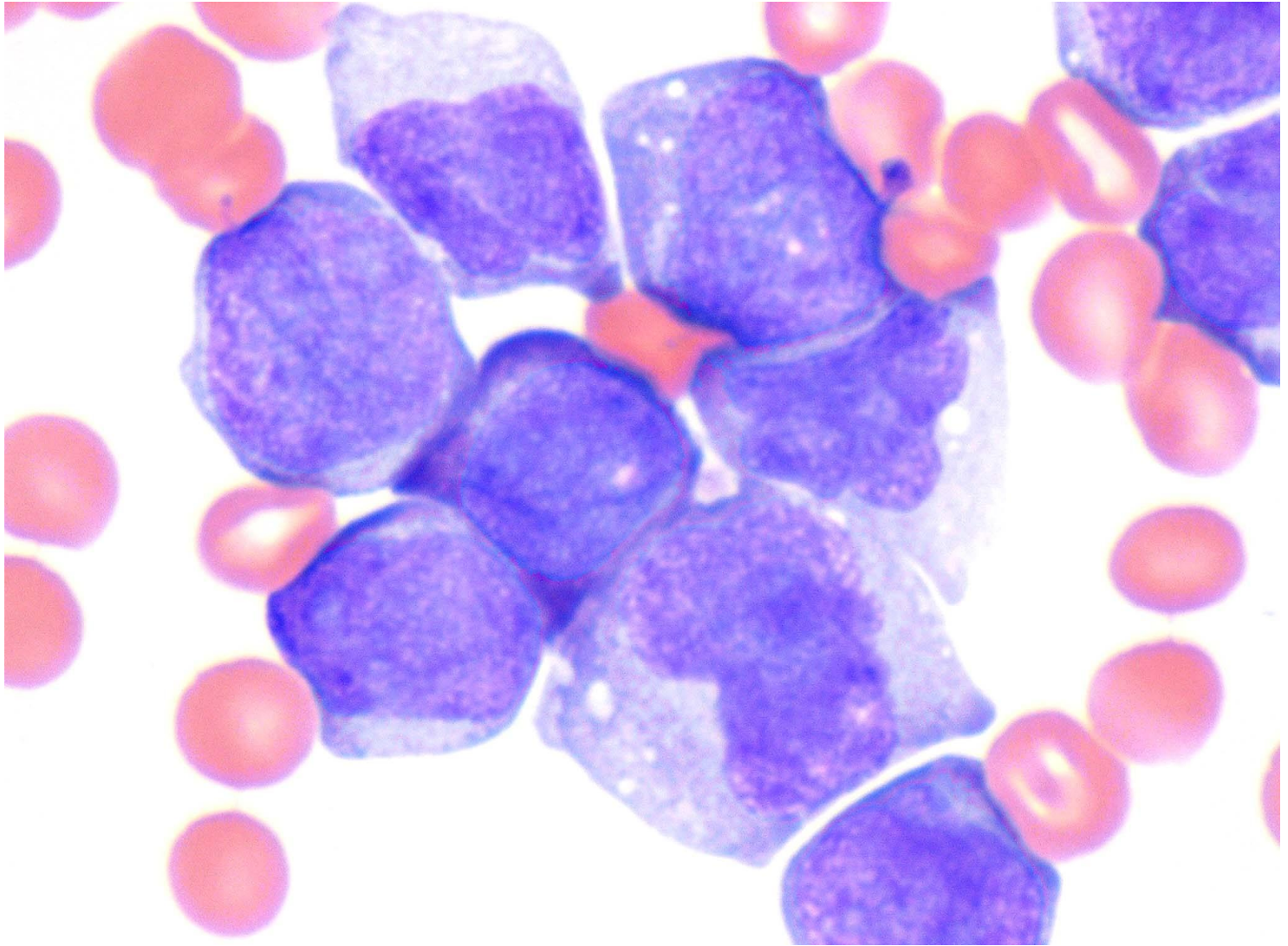
Peripheral Blood Smear (cont'd)



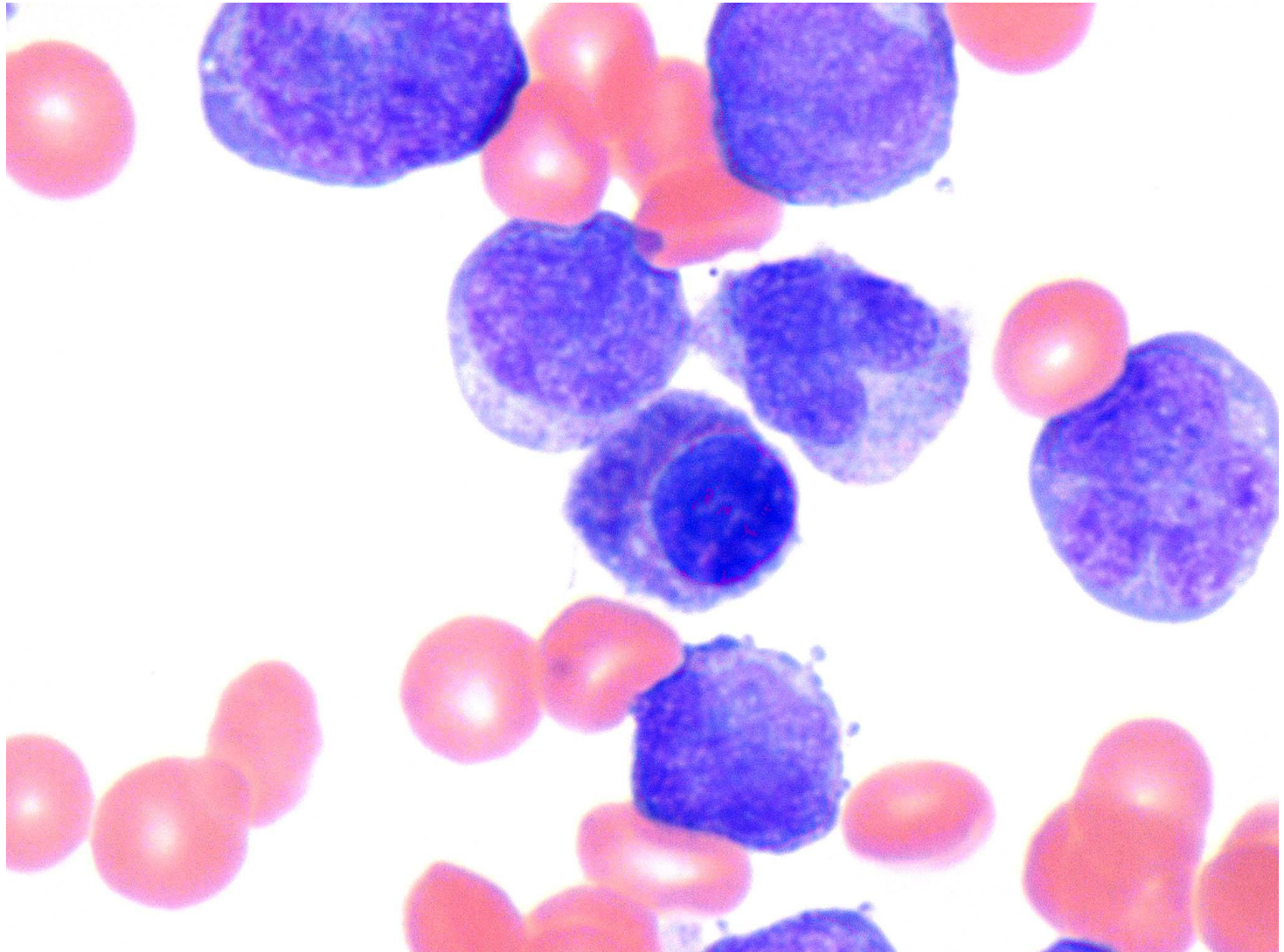
Peripheral Blood Smear (cont'd)



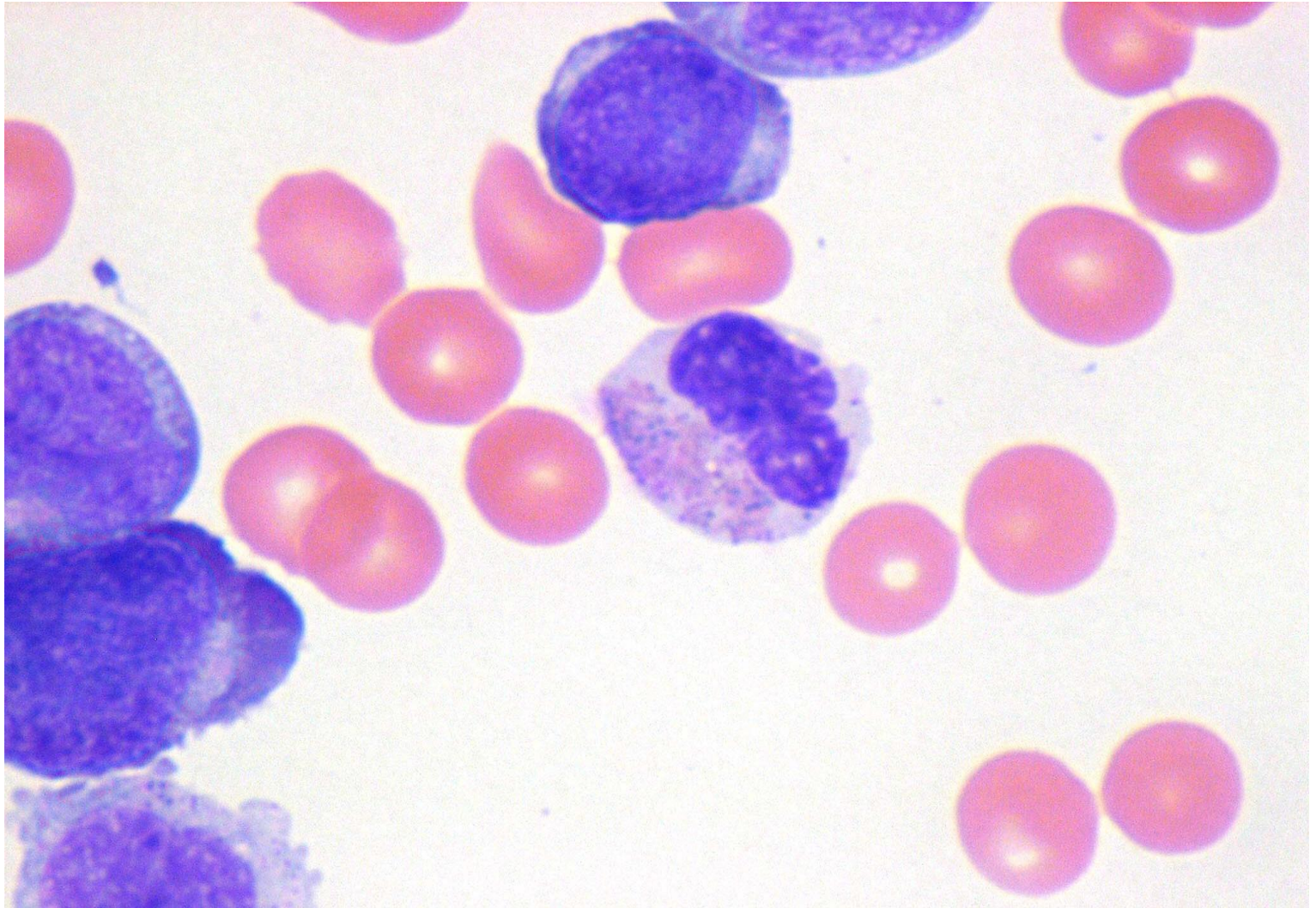
Peripheral Blood Smear (cont'd)



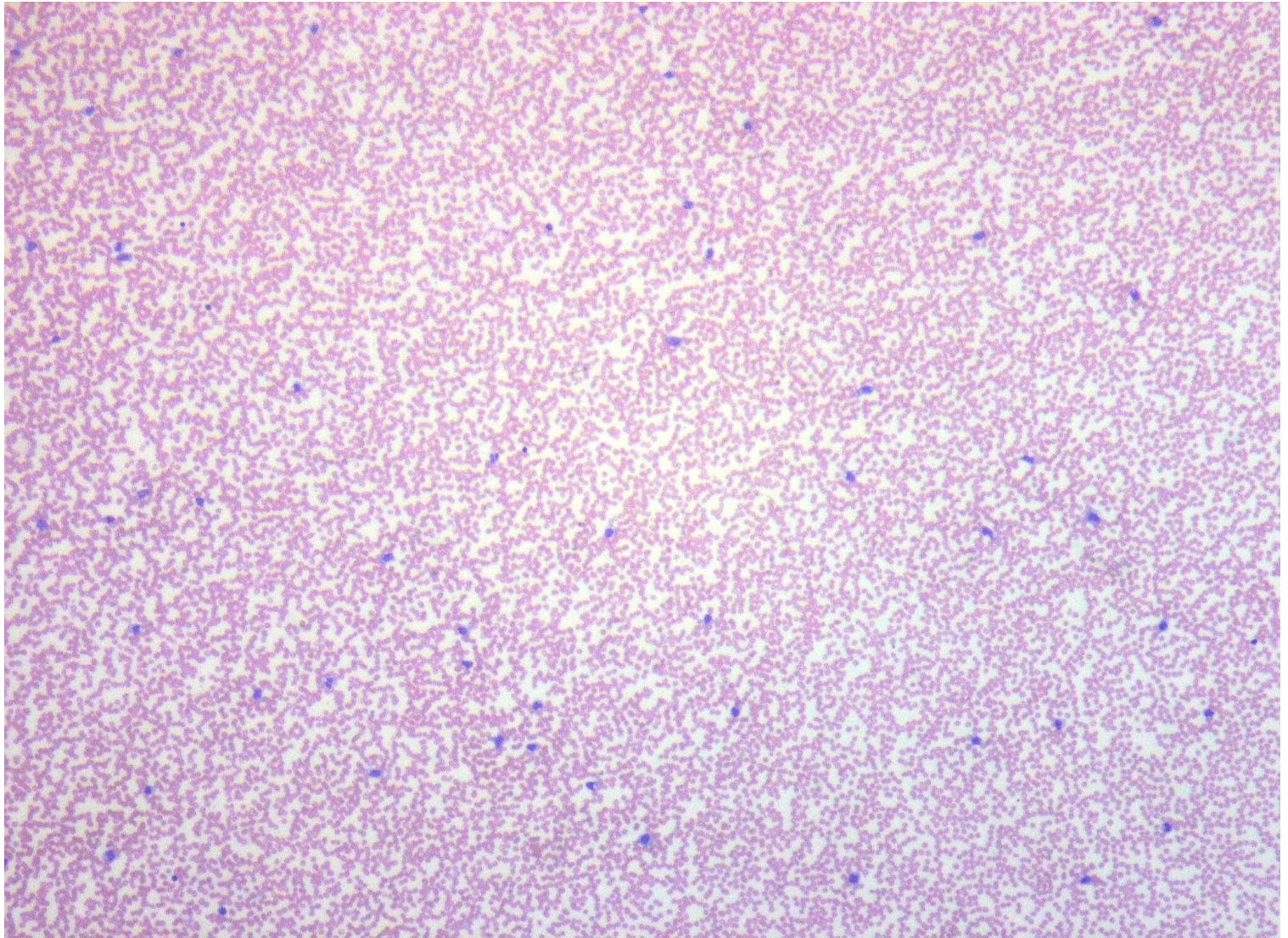
Peripheral Blood Smear (cont'd)



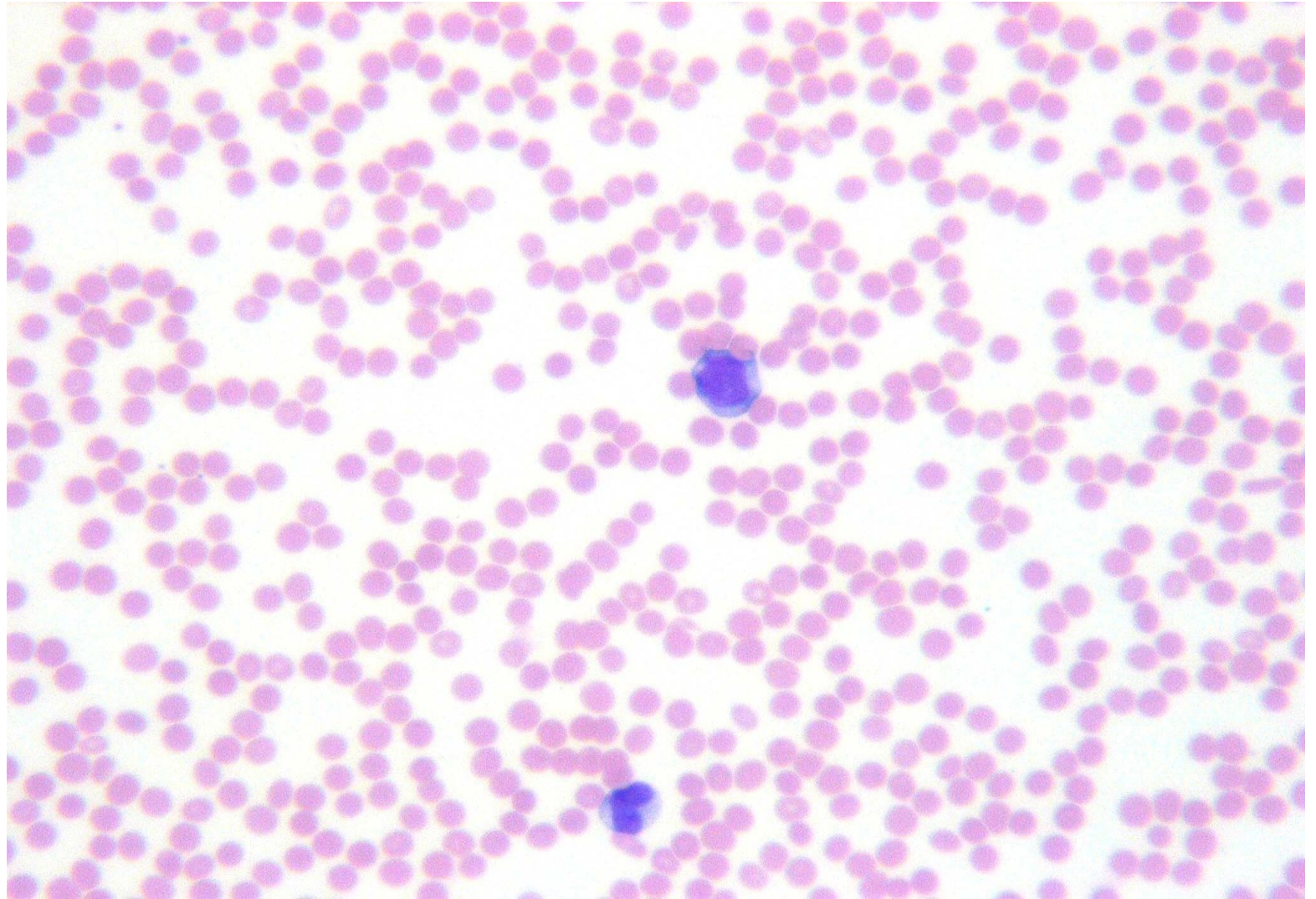
Peripheral Blood Smear (cont'd)



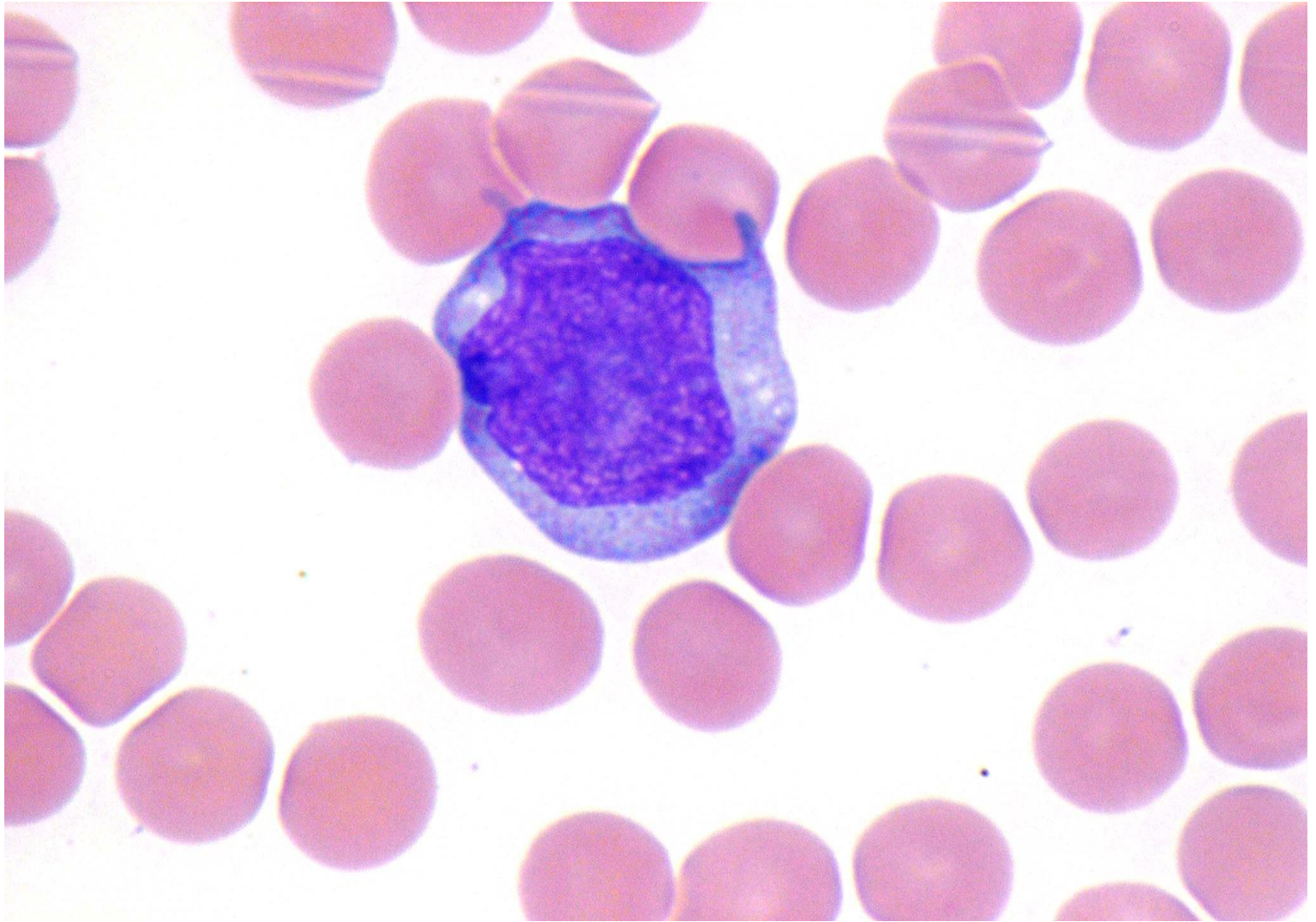
Peripheral Blood Smear (S/P Chemo with Ara-C)



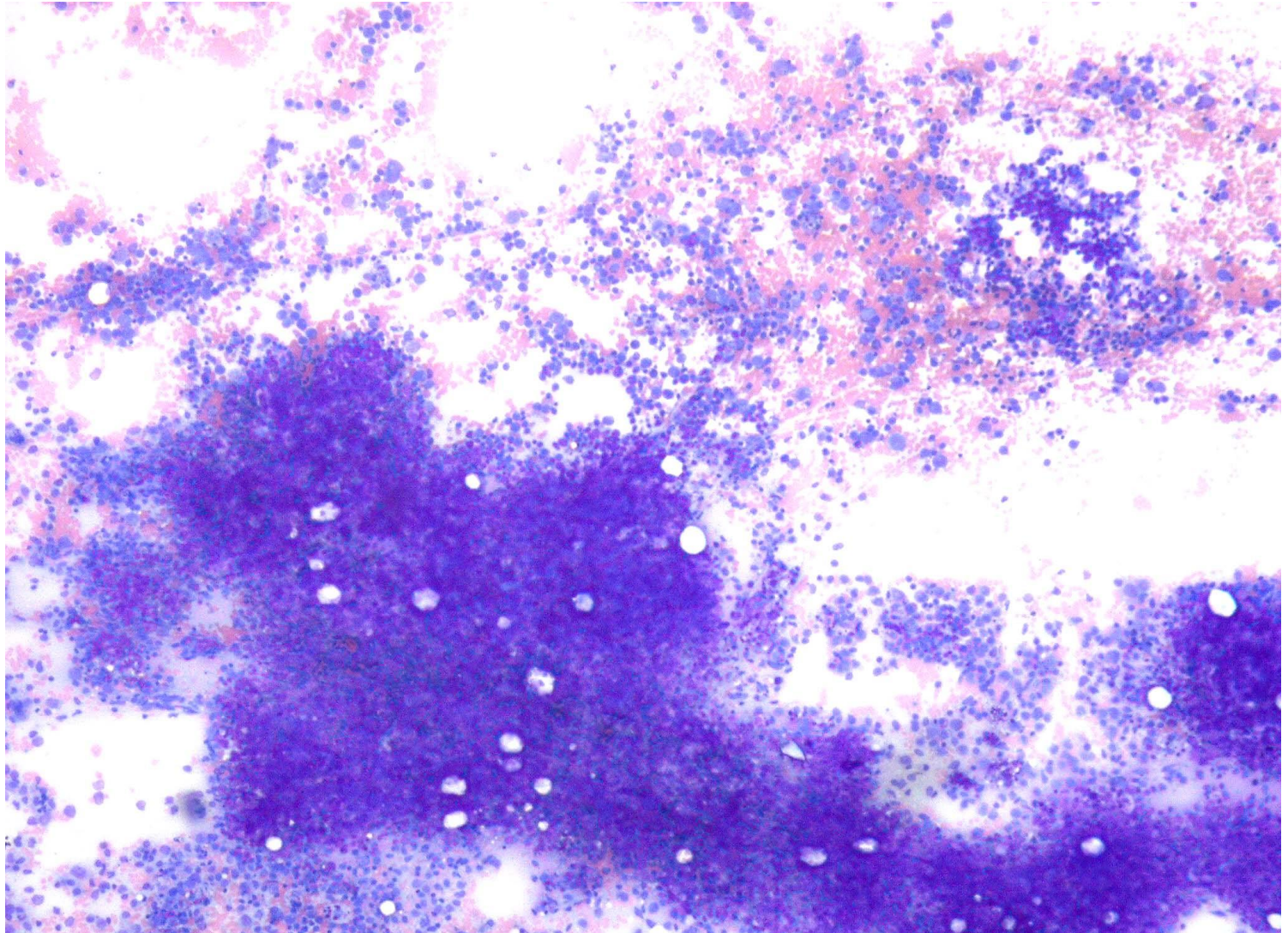
Peripheral Blood Smear (cont'd)



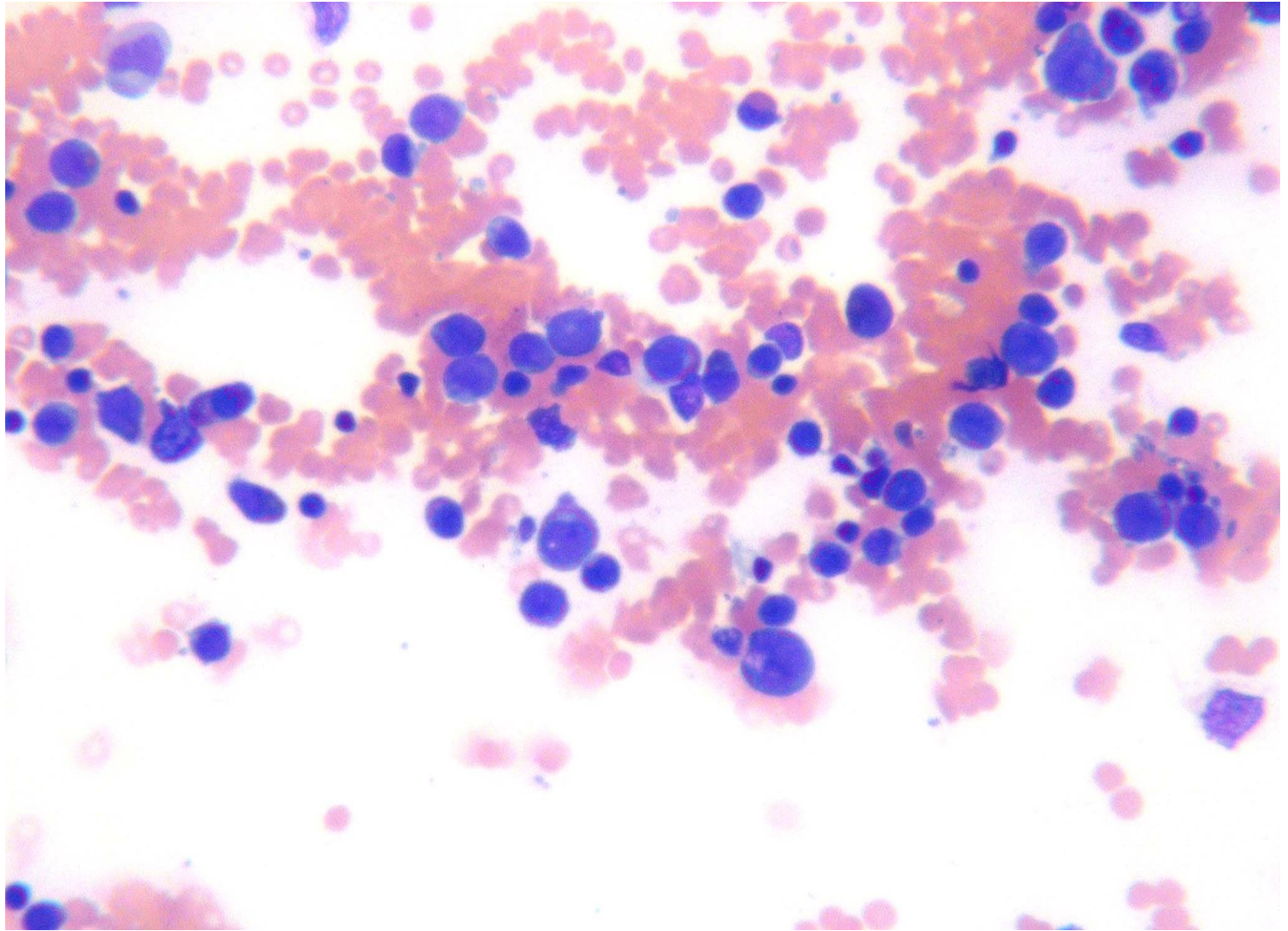
Peripheral Blood Smear (cont'd)



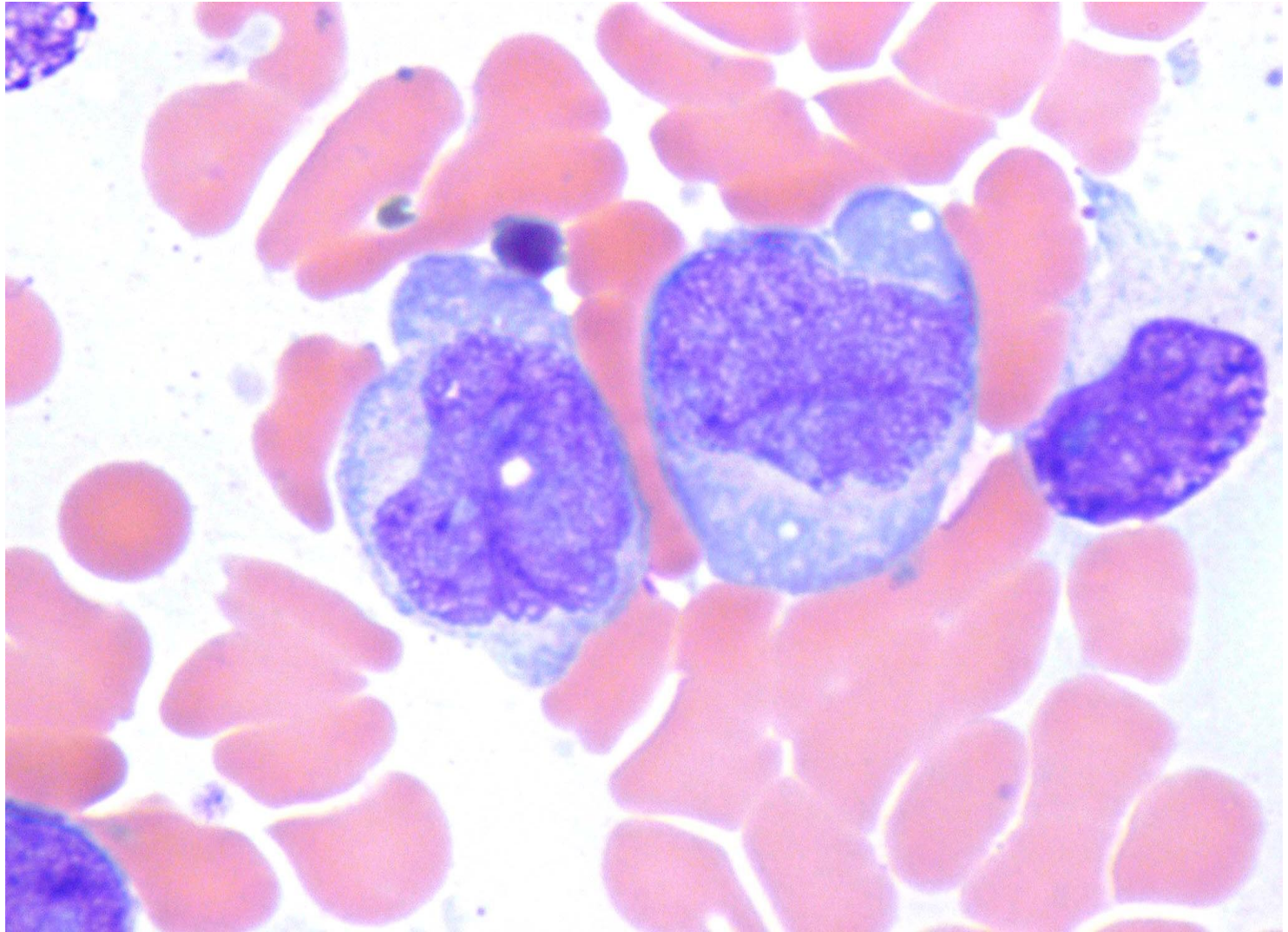
Bone Marrow Aspirate



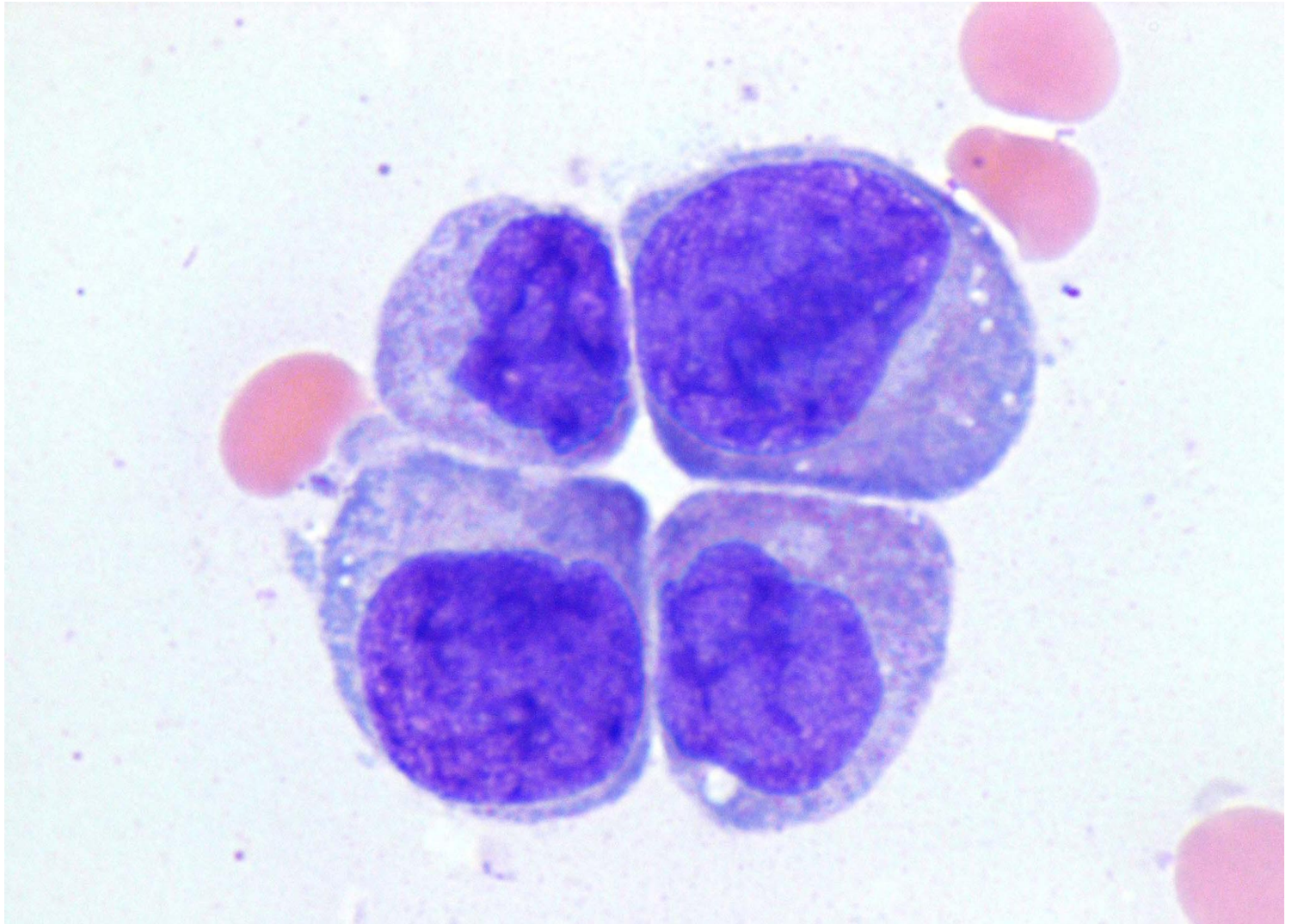
Bone Marrow Aspirate (cont'd)



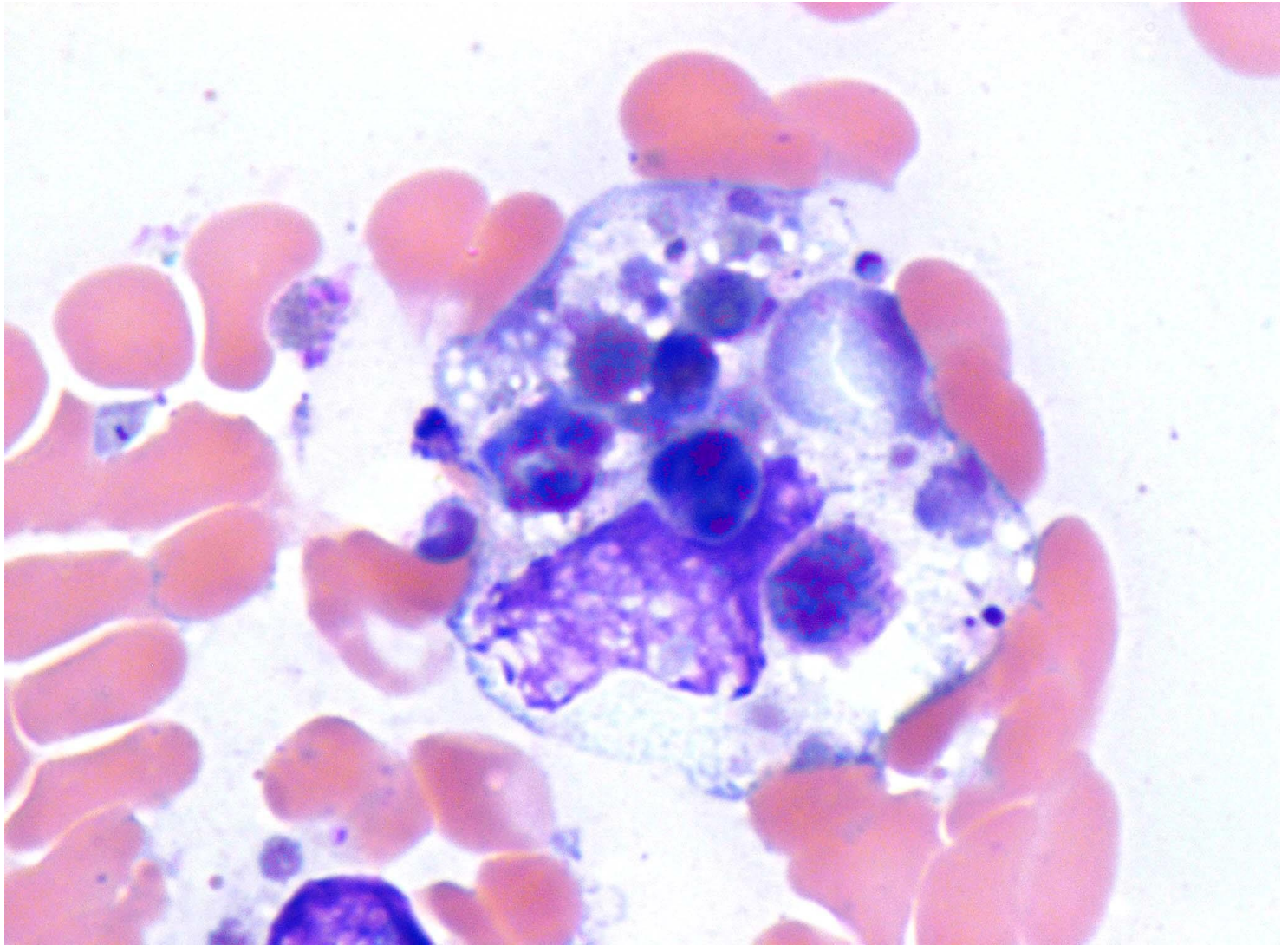
Bone Marrow Aspirate (cont'd)



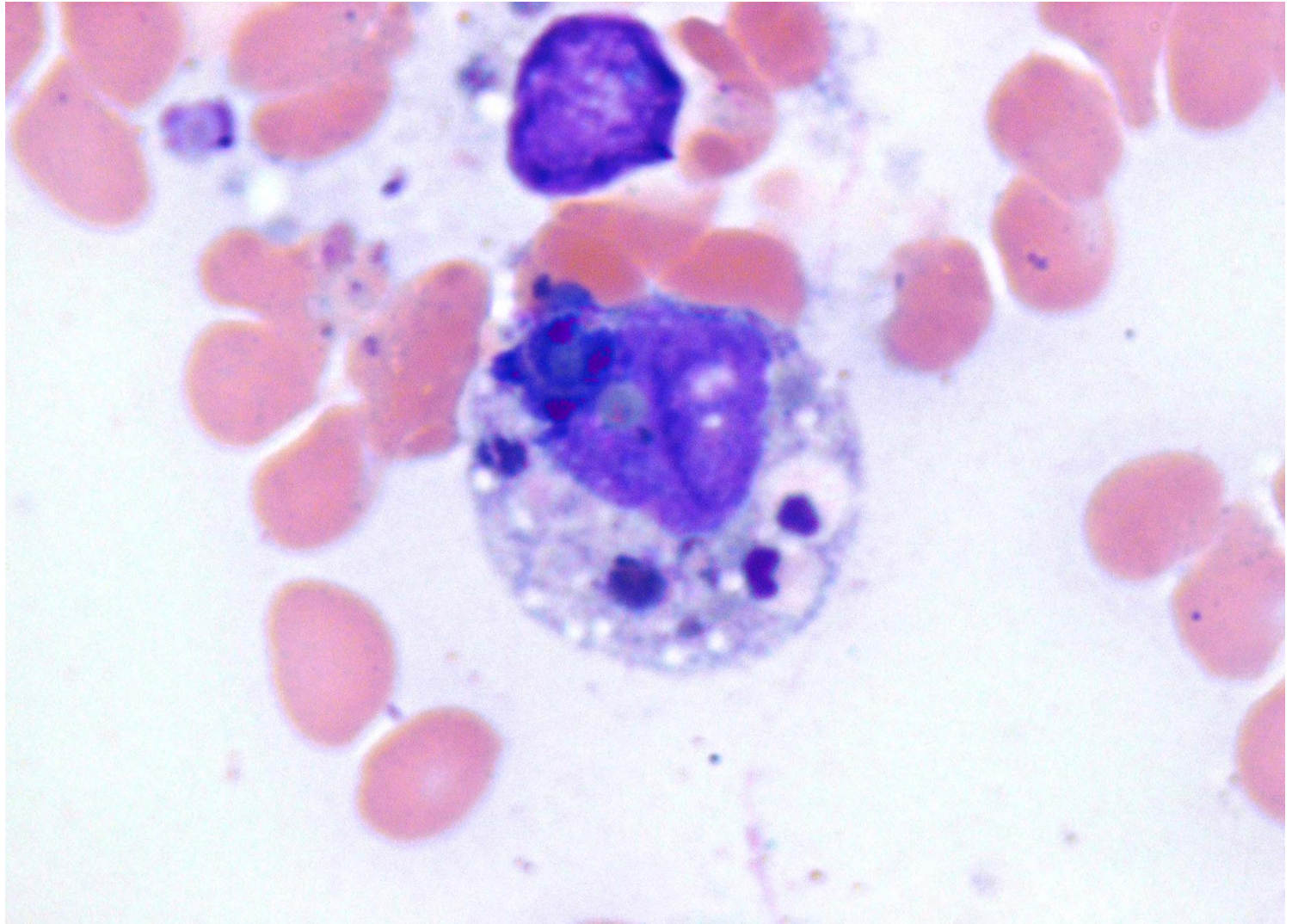
Bone Marrow Aspirate (cont'd)



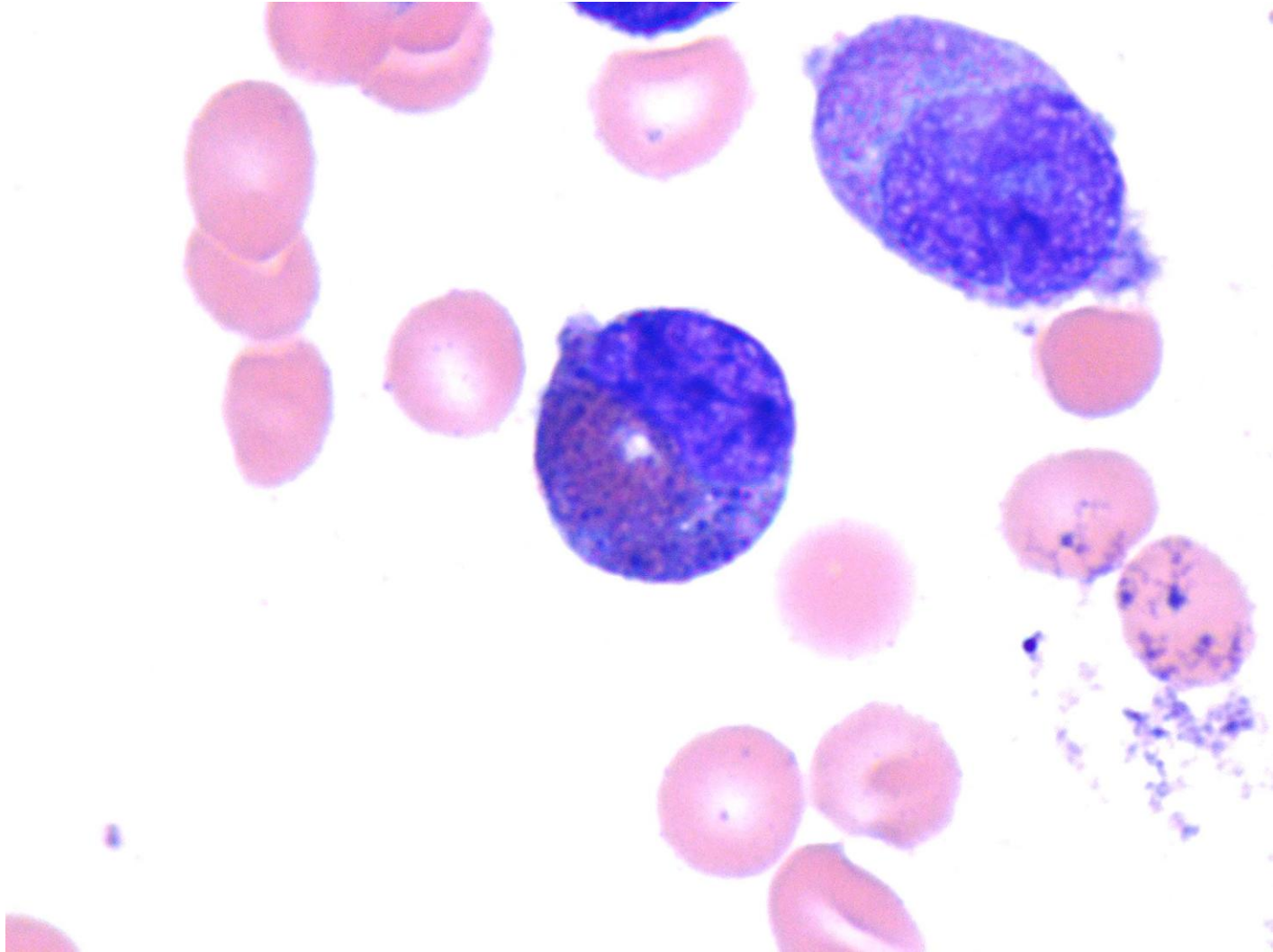
Bone Marrow Aspirate (cont'd)



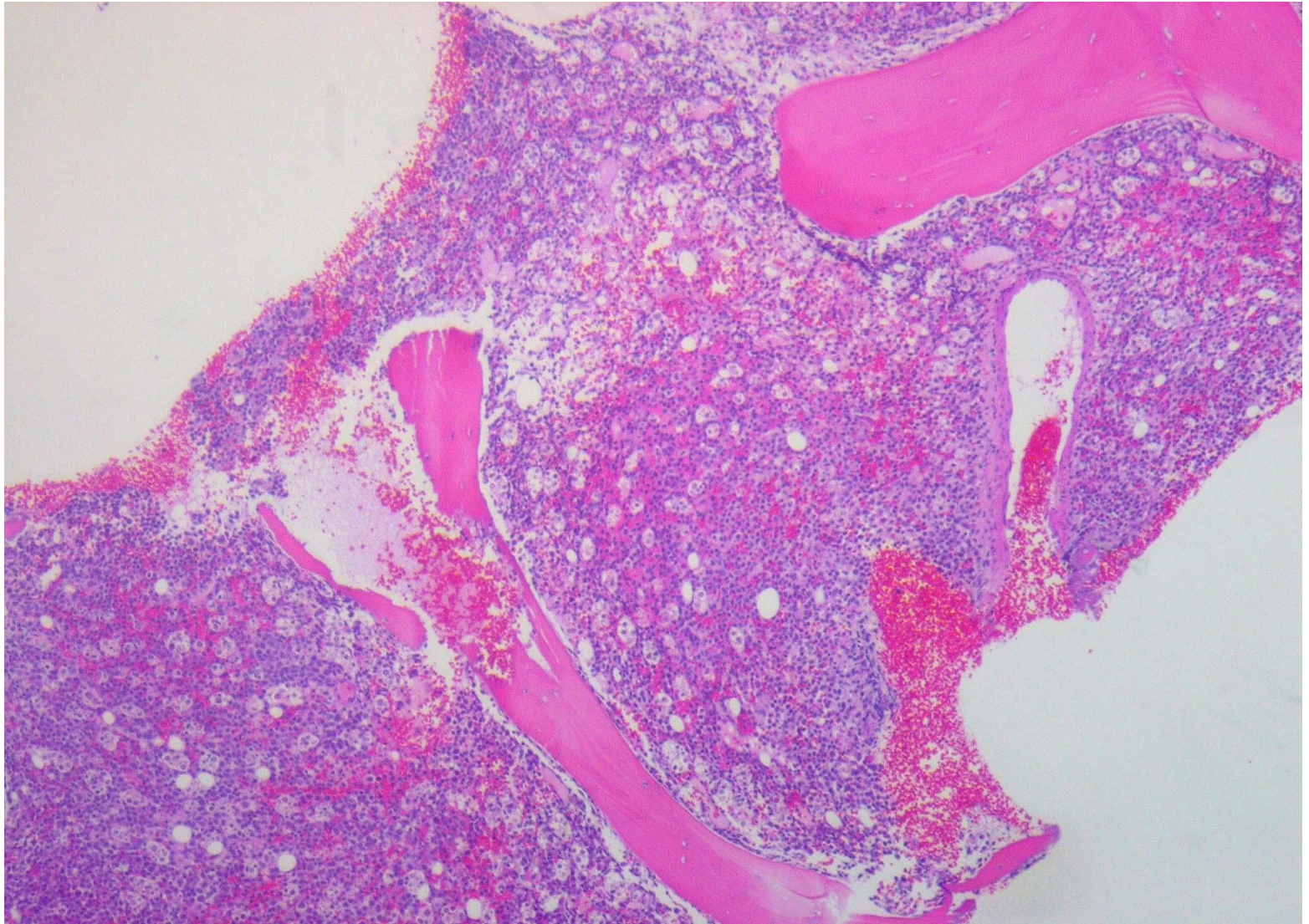
Bone Marrow Aspirate (cont'd)



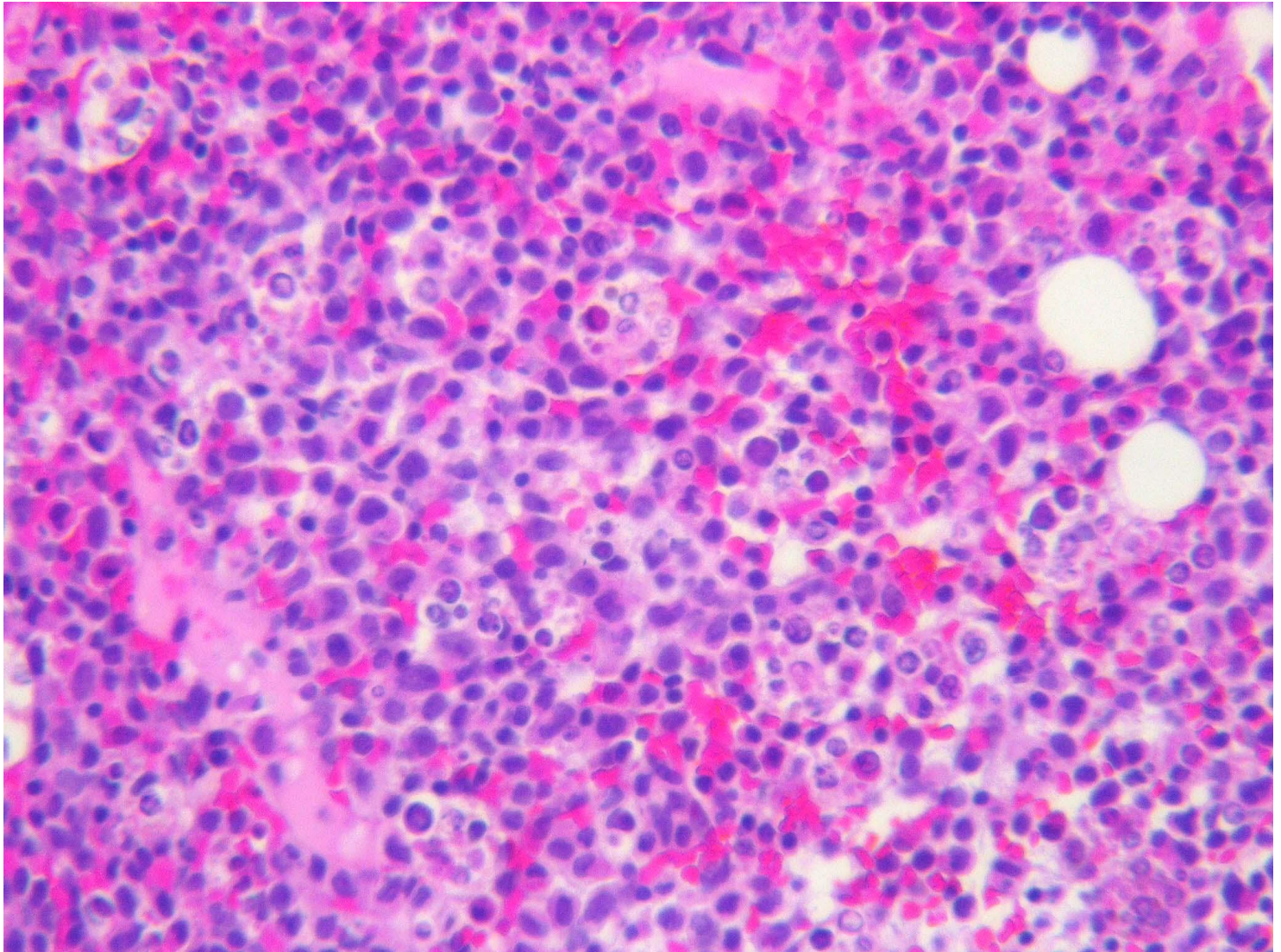
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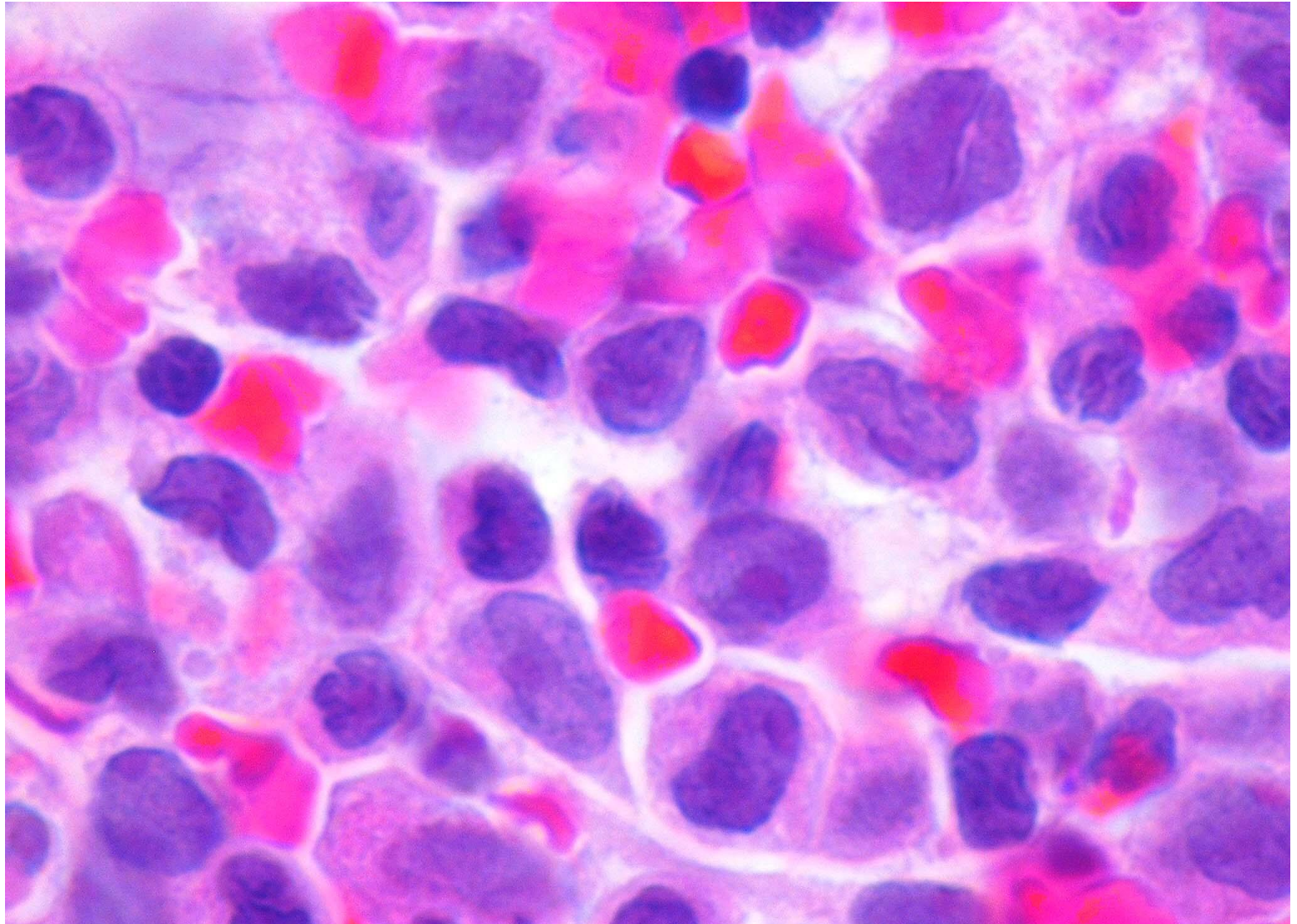
Bone Marrow Biopsy



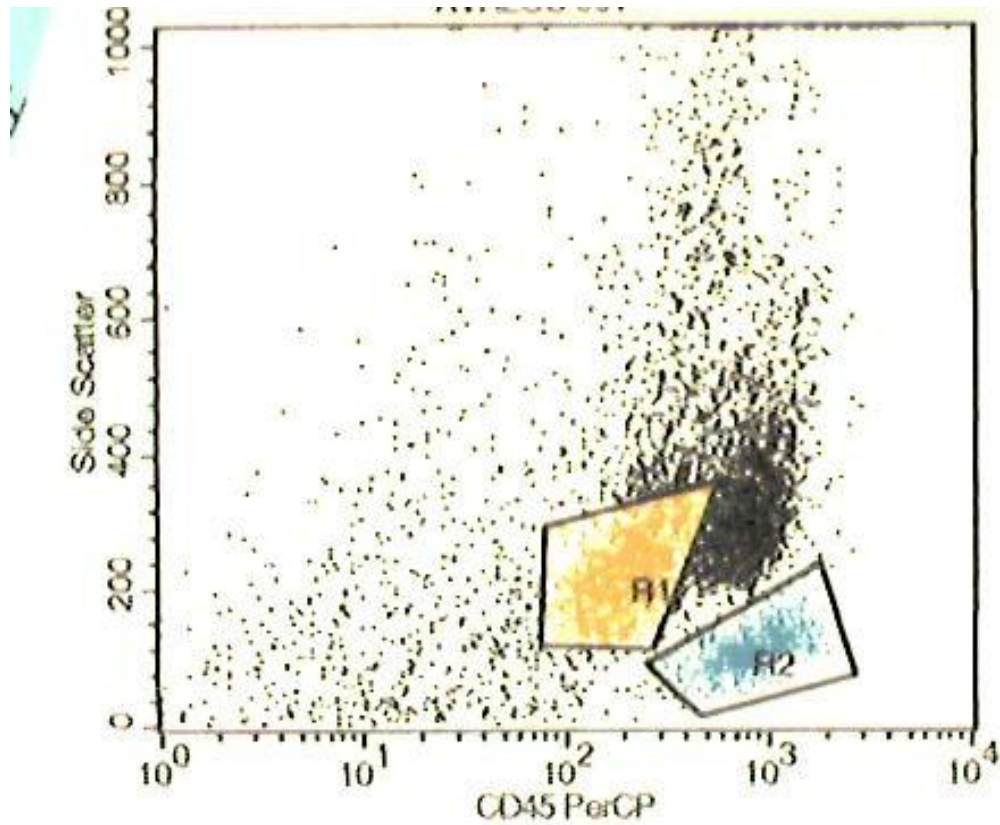
Bone Marrow Biopsy (cont'd)



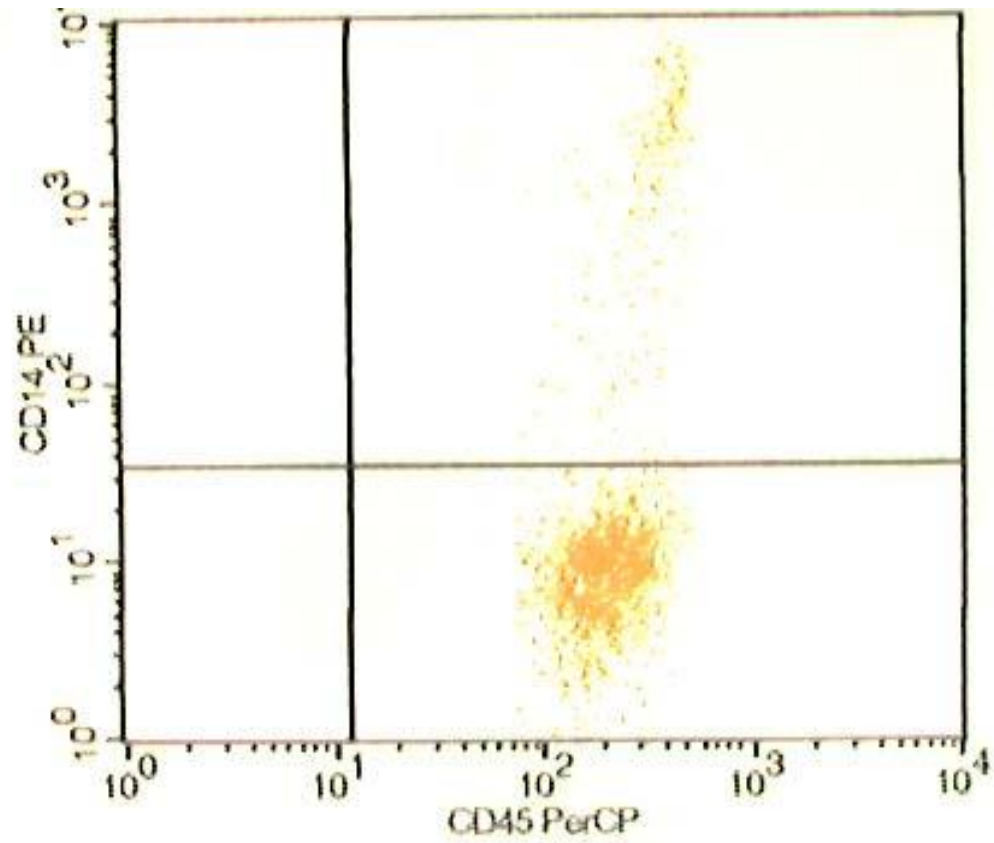
Bone Marrow Biopsy (cont'd)



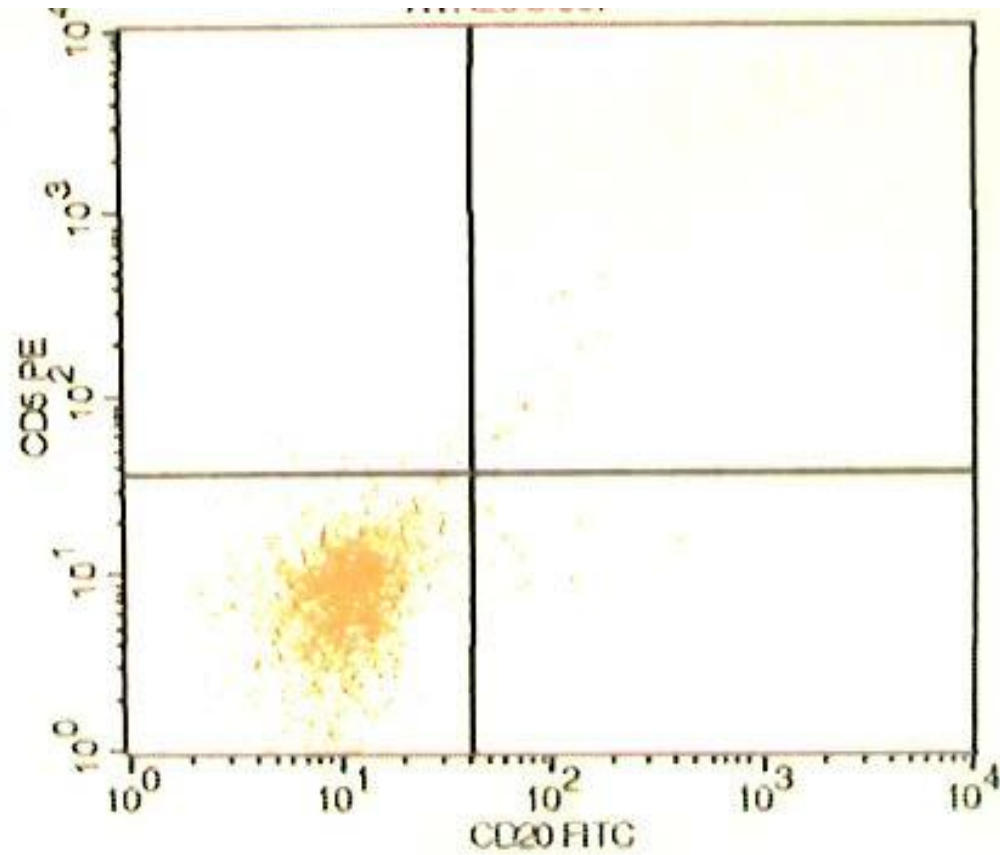
Flow Cytometry Study



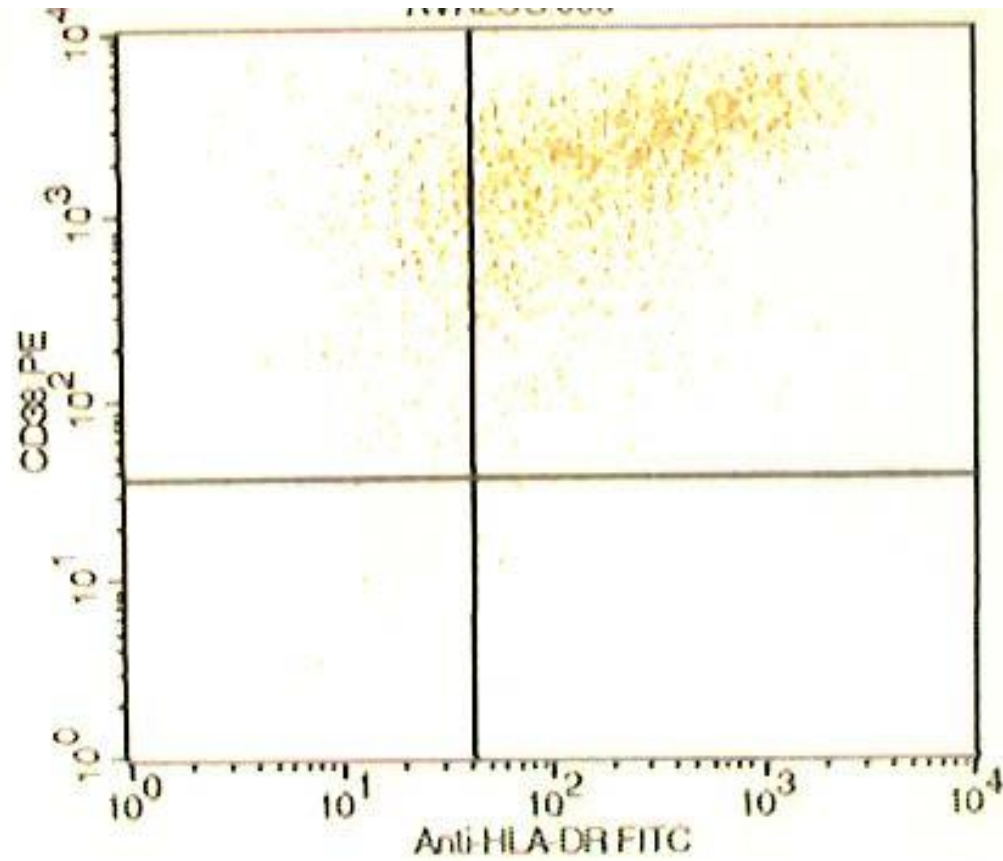
Flow Cytometry Study



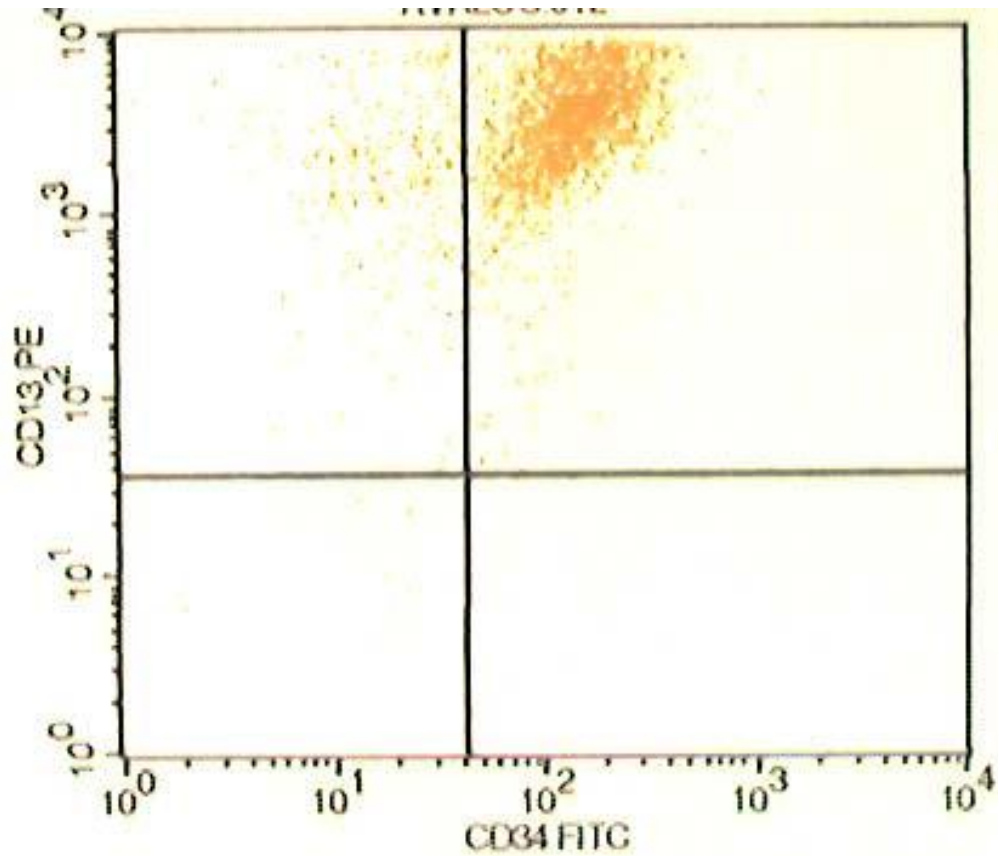
Flow Cytometry Study



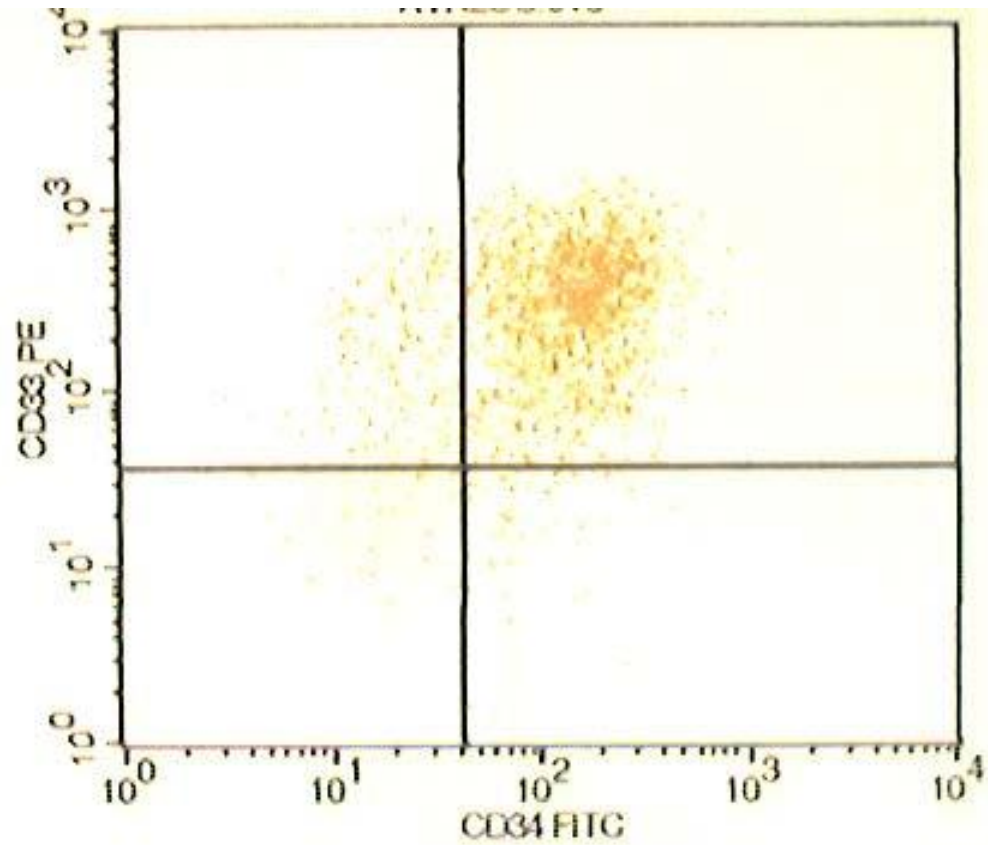
Flow Cytometry Study



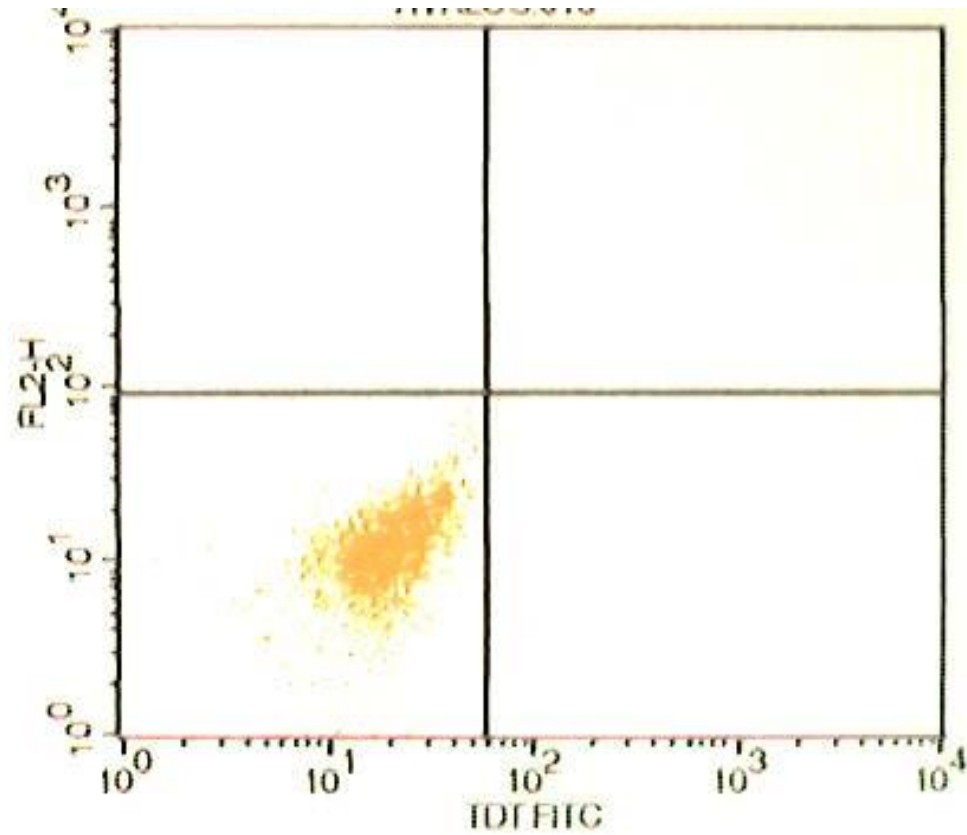
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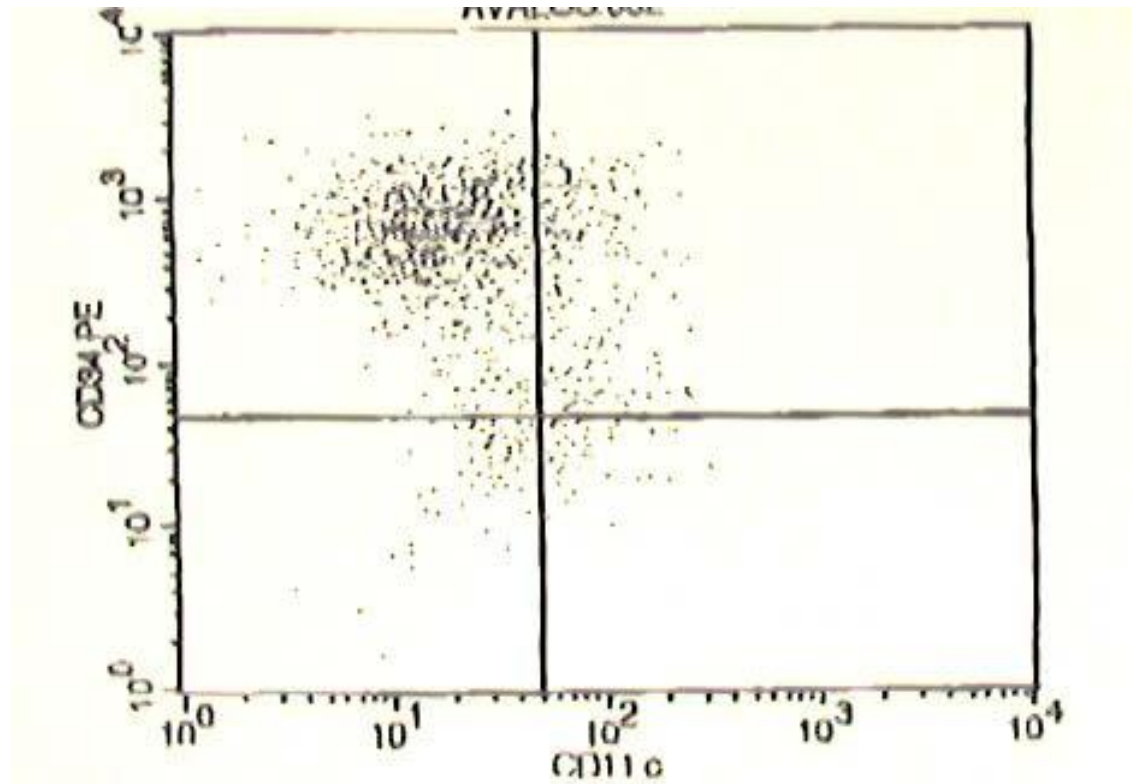
Flow Cytometry Study



Flow Cytometry Study



Flow Cytometry Study

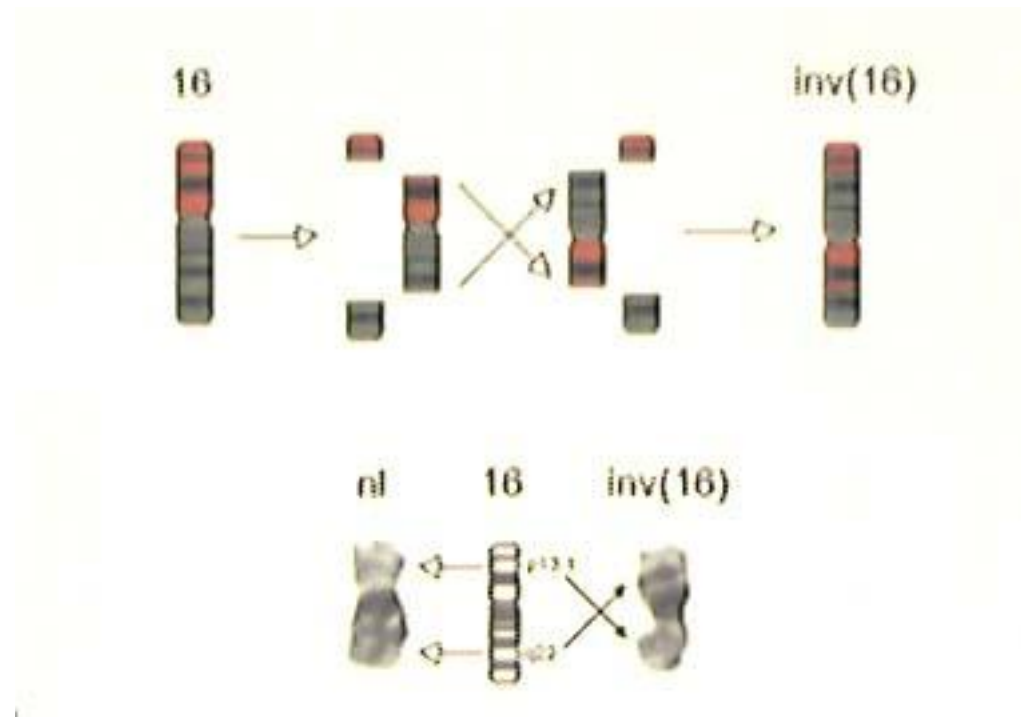




Diagnosis

- Flow cytometry:
Blast cells
-Pos: CD34, CD13, CD33, HLA-DR
-Neg: CD14, CD11c
- Bone marrow aspirate differential:
Blast 71.5%, Erythroid 14%
Only 8.5% of the myeloid cells show maturation beyond the blast stage
- DX: Acute myeloblastic leukemia without maturation, AML-M1

Cytogenetics: inv (16), +22





Diagnosis

- WHO: AML with inv(16)
 - (a) inv(16)
 - (b) 6.5% eosinophils with a few abnormal eos -> AMML Eo
 - (c) monocytic differentiation (neg in this case?)

[Note: inv(16) also seen in AML-M2, M4, M5; MDS]
- FAB: AML-M1



Follow-up

Post-chemo day #	WBC count
1	133
2	29.5
3	5.3

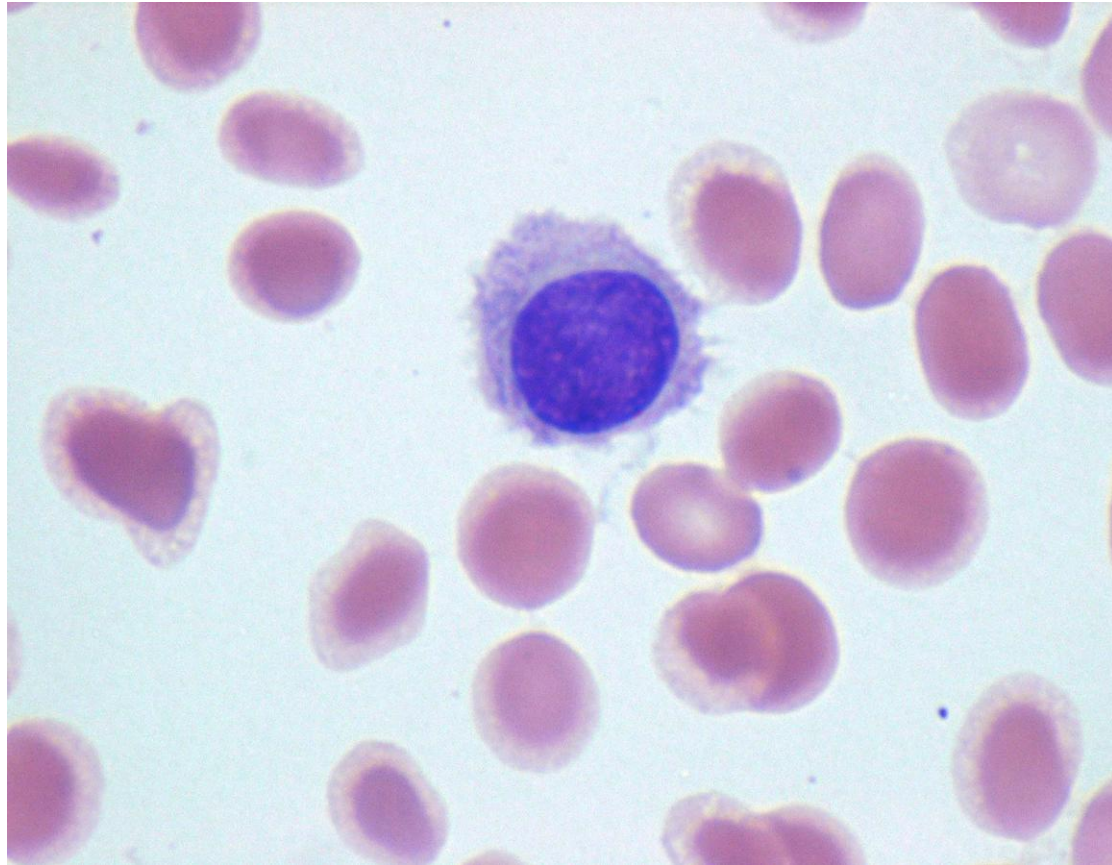


Bone Marrow Case

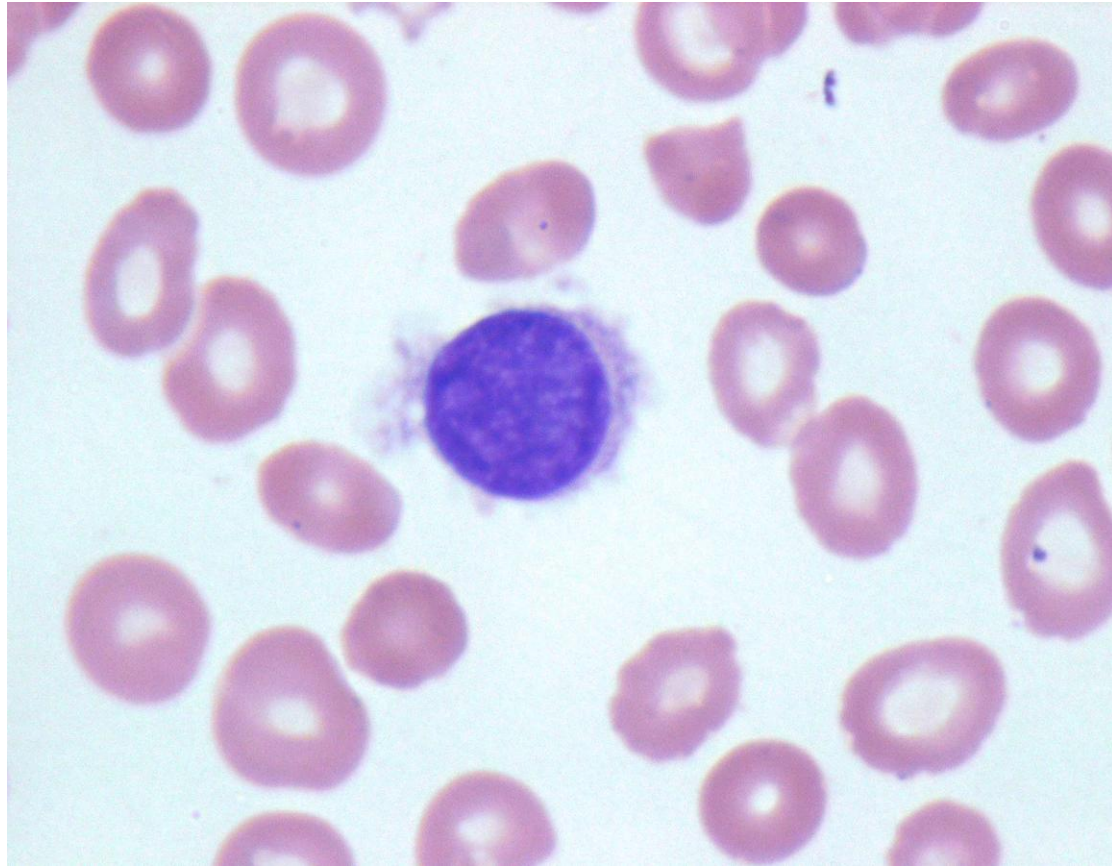
Patient: Jamxxx Bacxxx

- 49 year old white male with abdominal distension x 6 months, found to have splenomegaly, and pancytopenia. No lymphadenopathy is noted.
- WBC=2.6, Hgb=5.5, Plt=16K, MCV=98.6, Retic 2.1%
Lymph 68%, NRBC 3

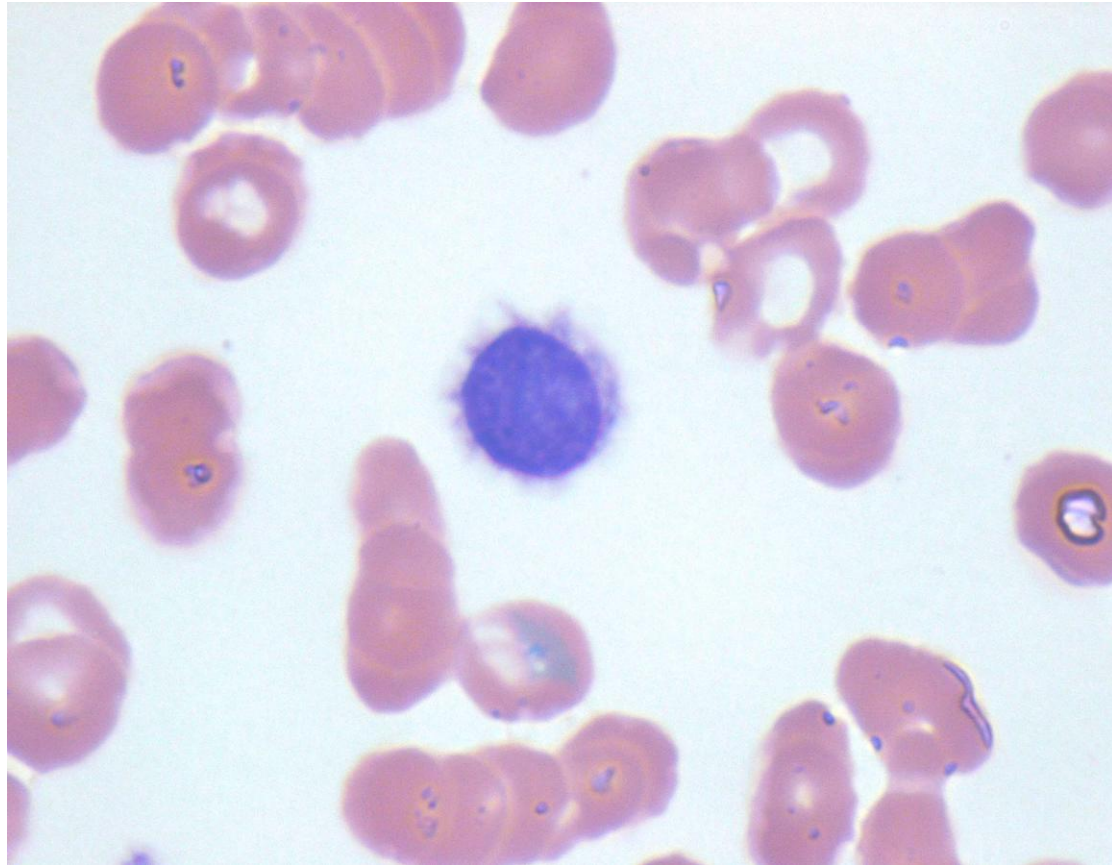
Peripheral Blood Smear



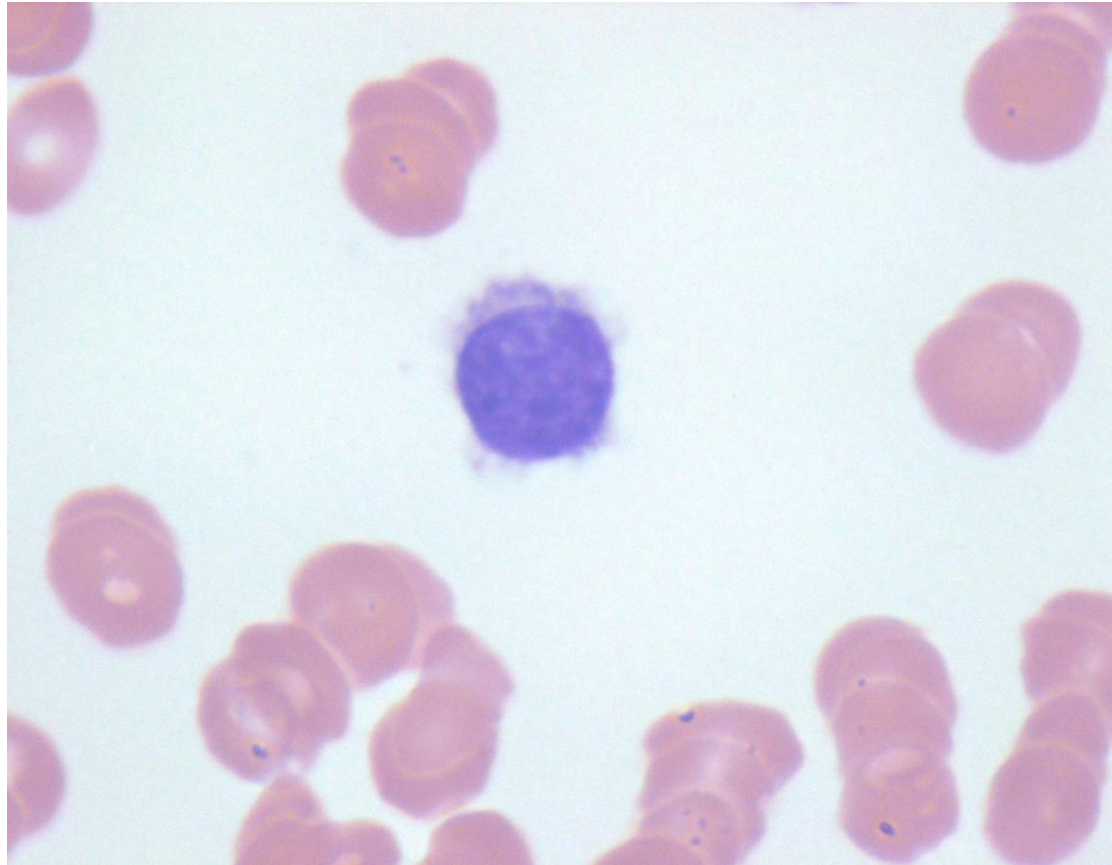
Peripheral Blood Smear



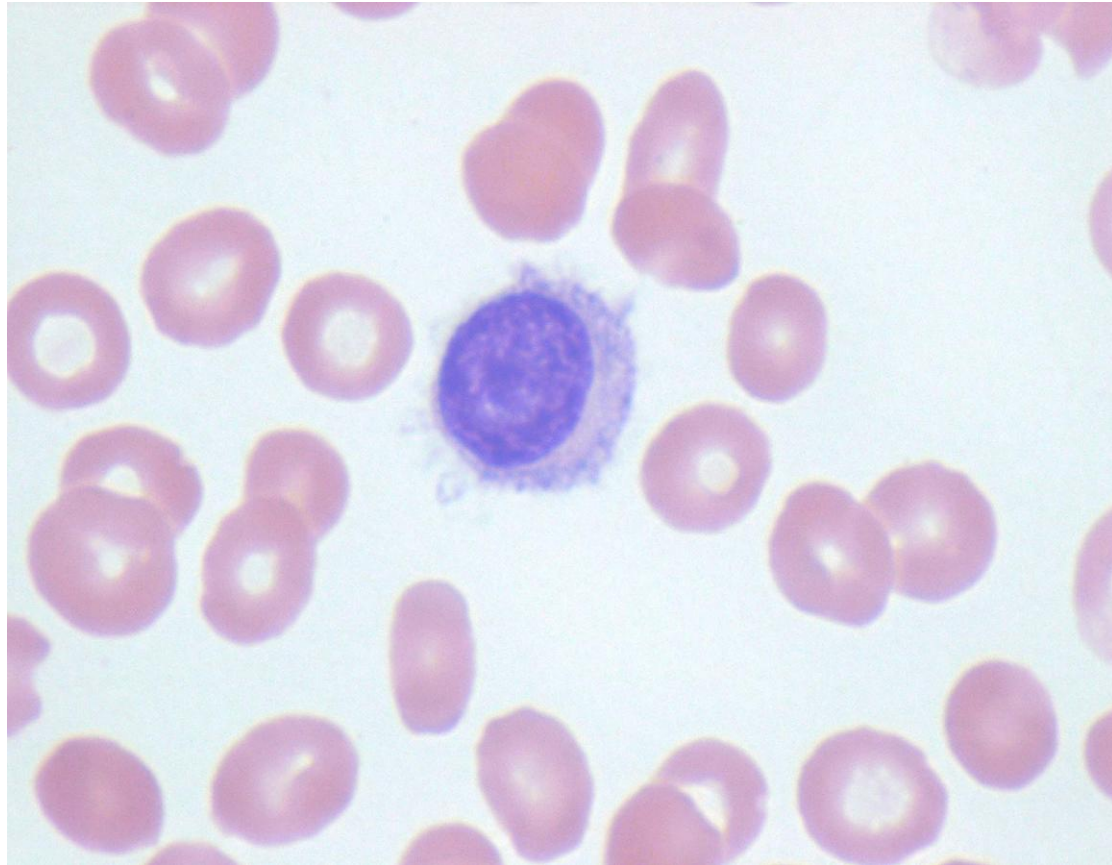
Peripheral Blood Smear



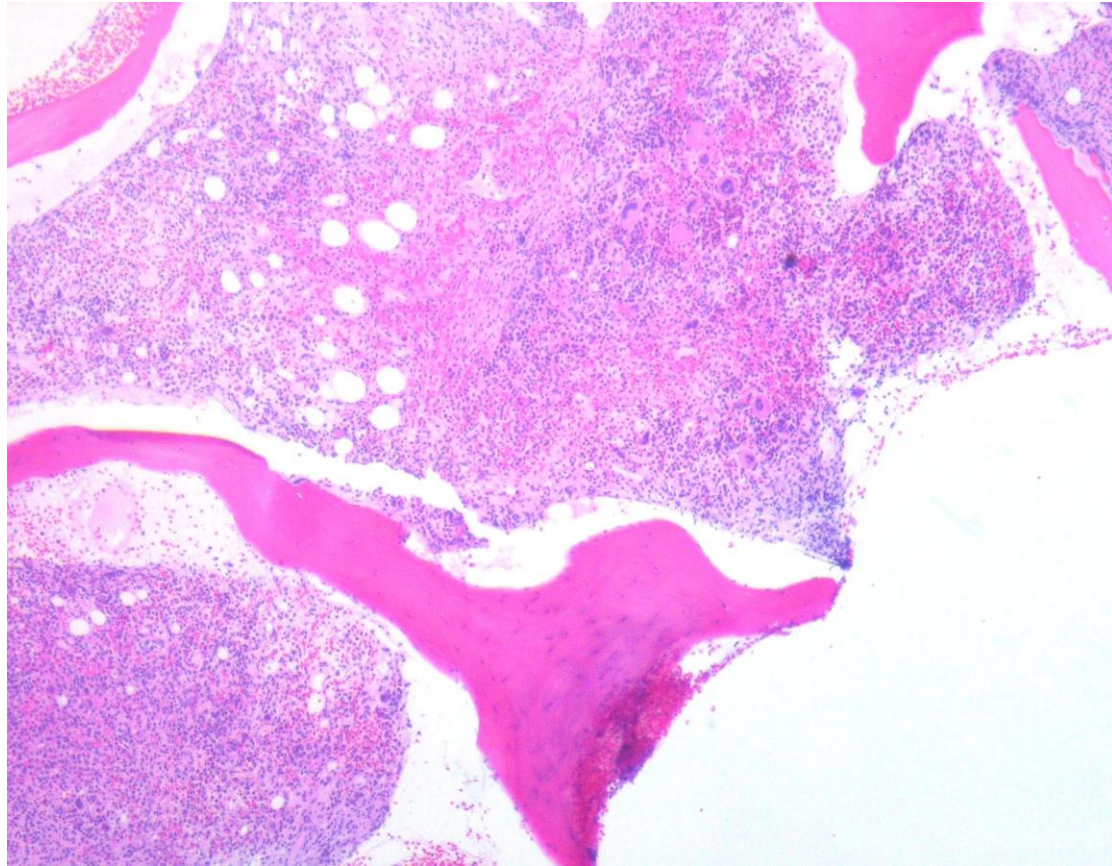
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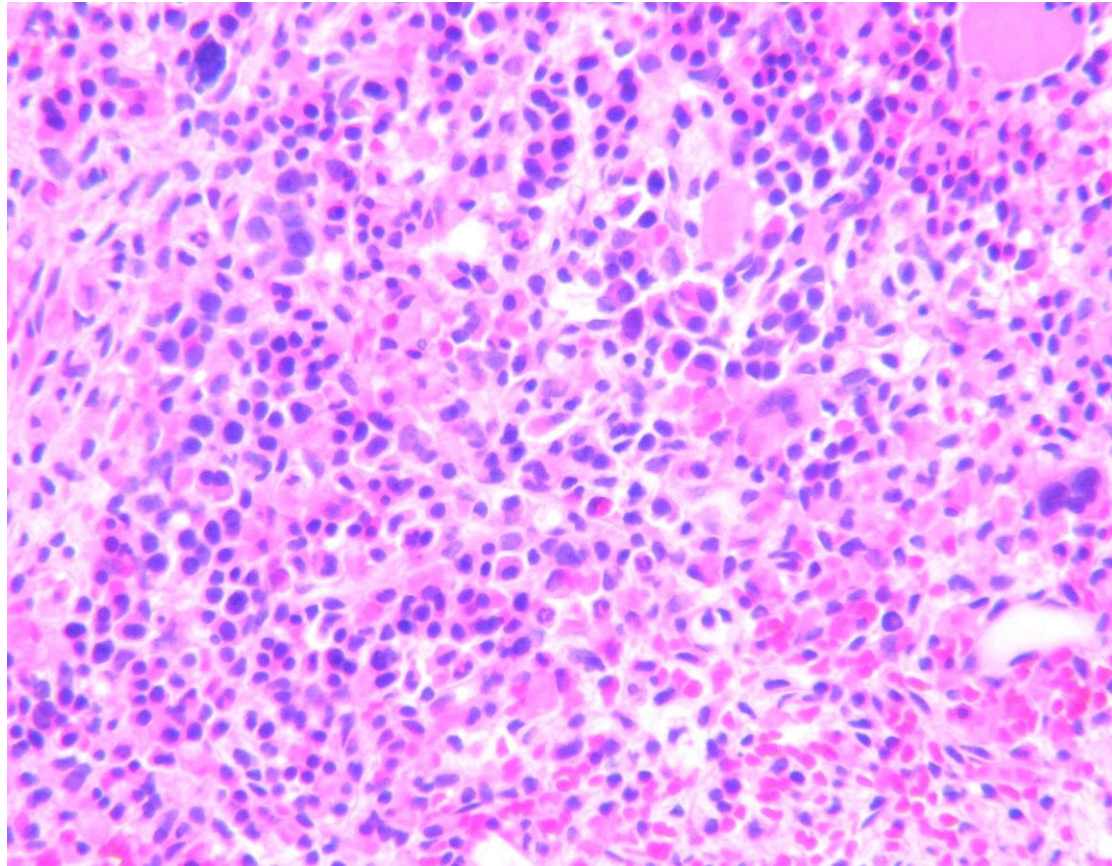
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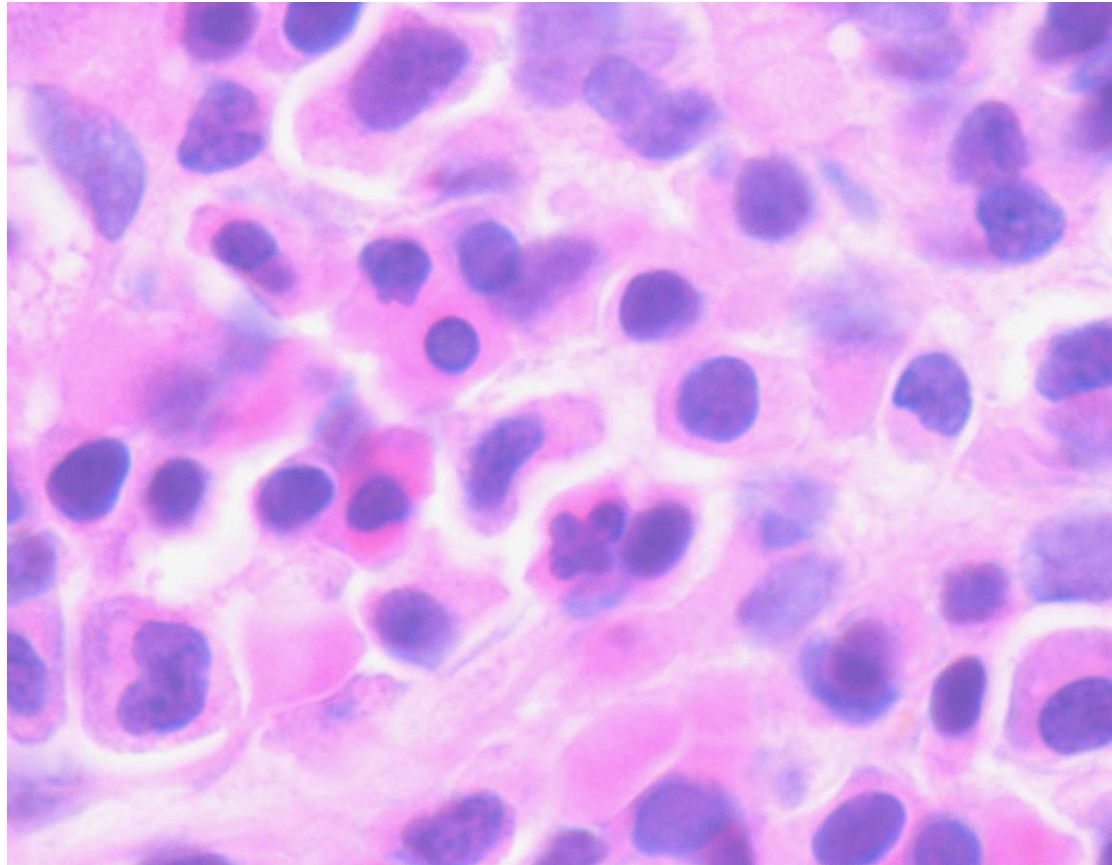
Bone Marrow Biopsy



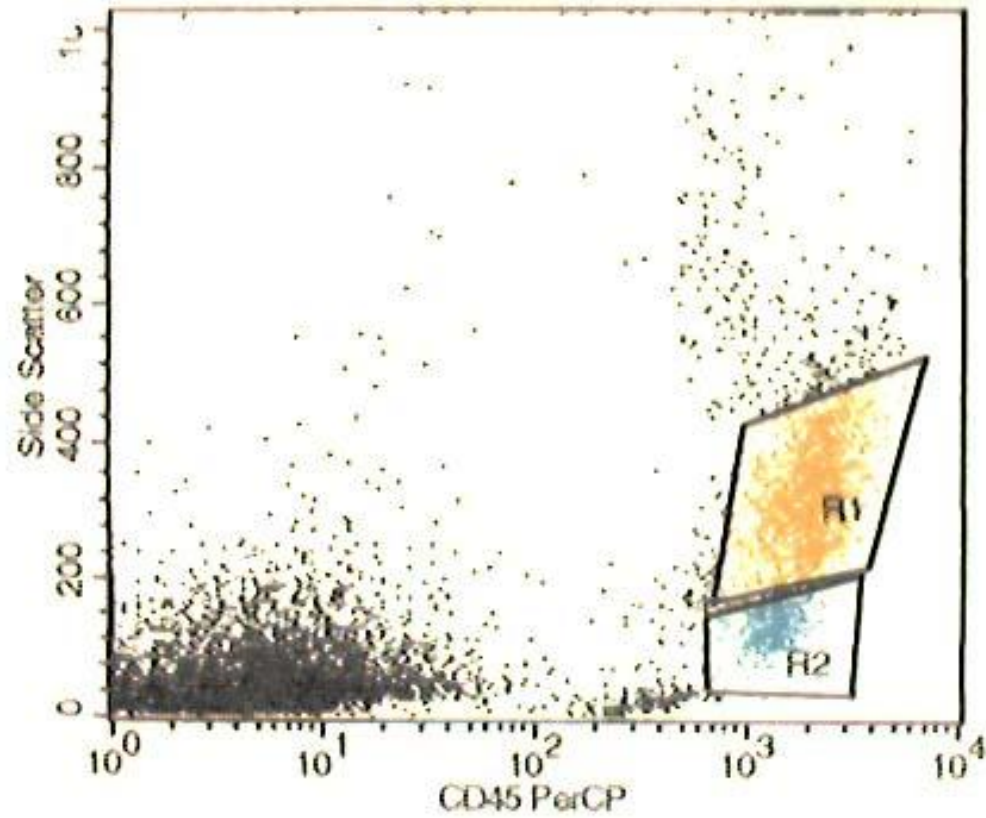
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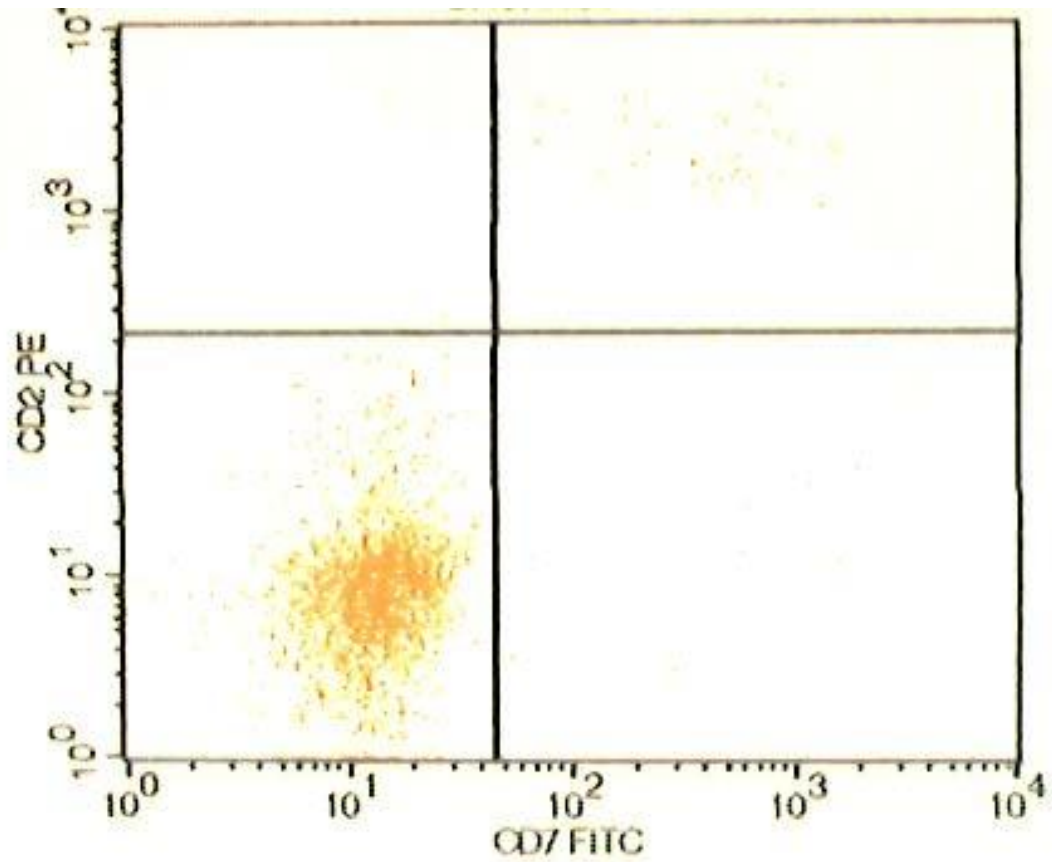
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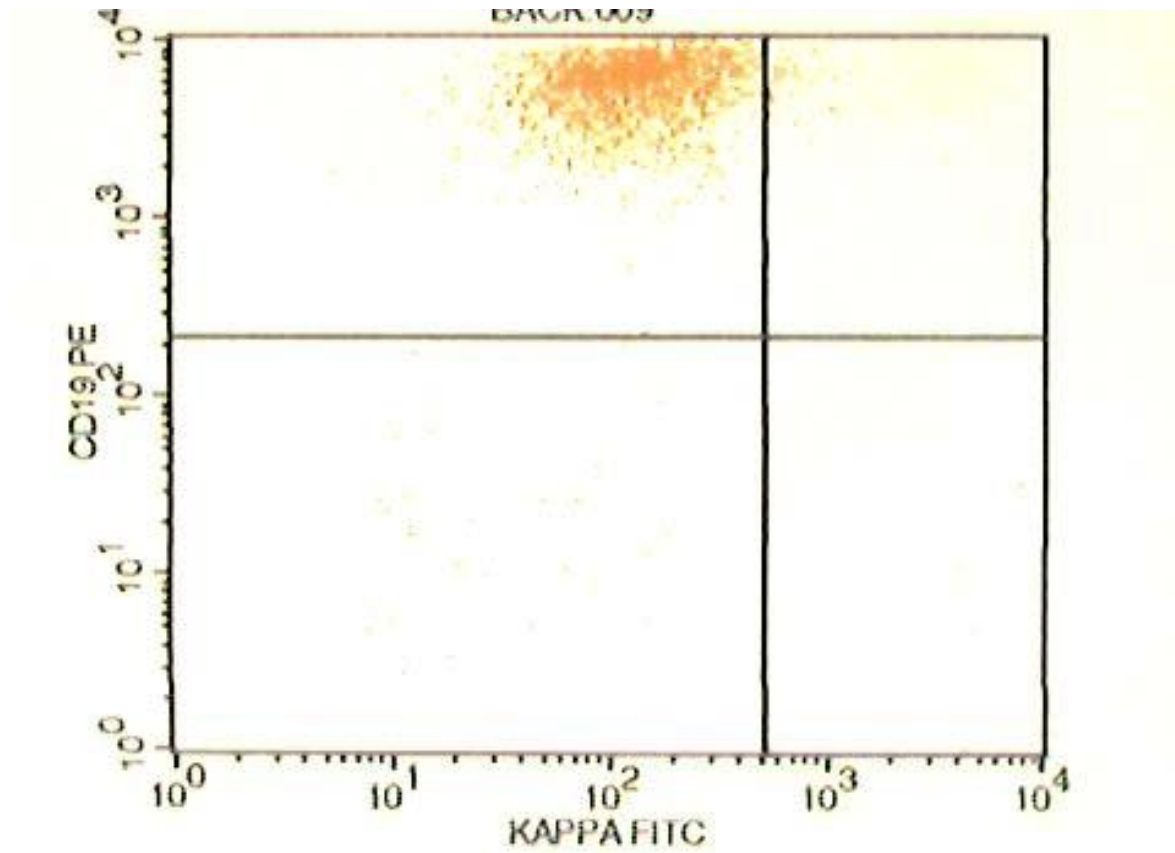
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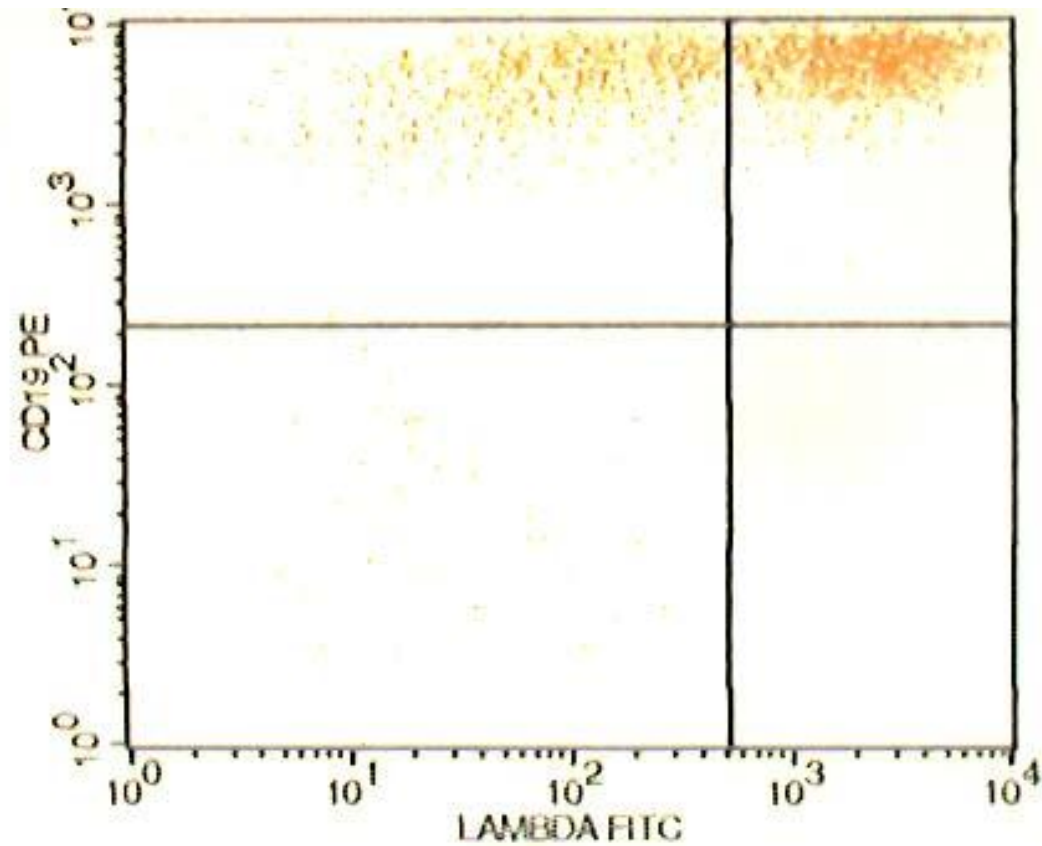
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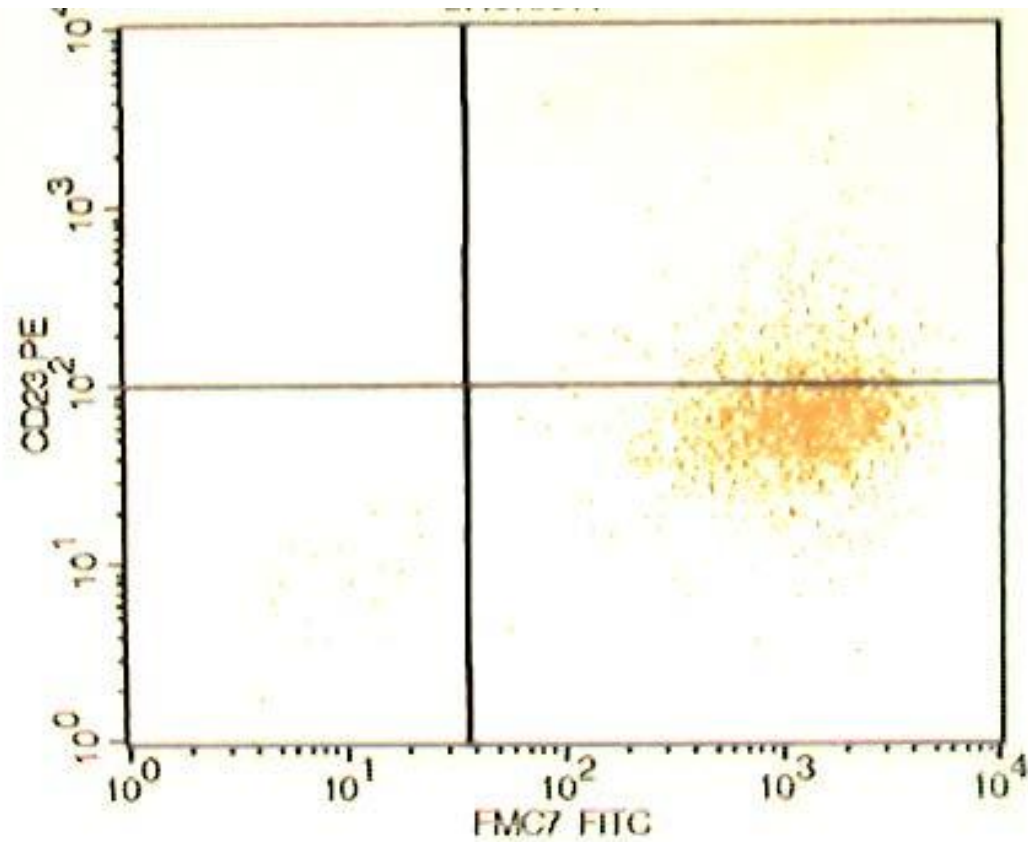
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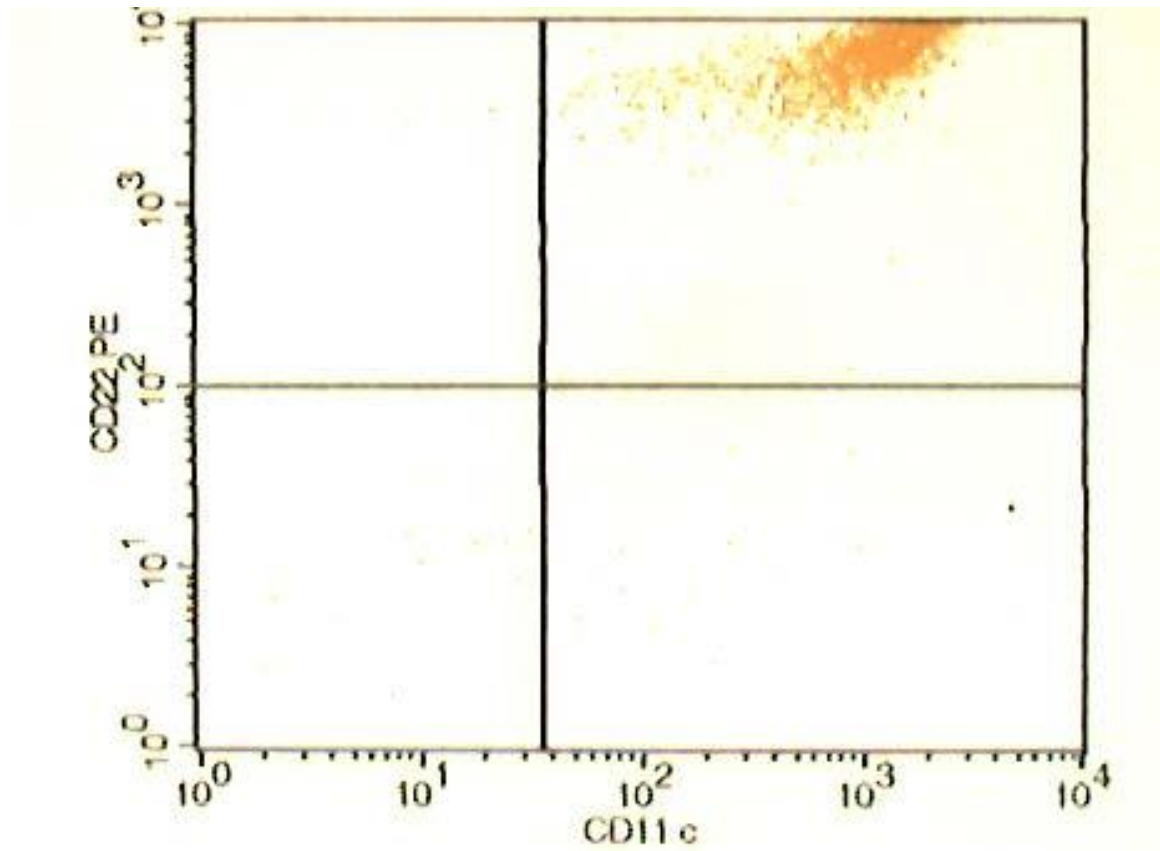
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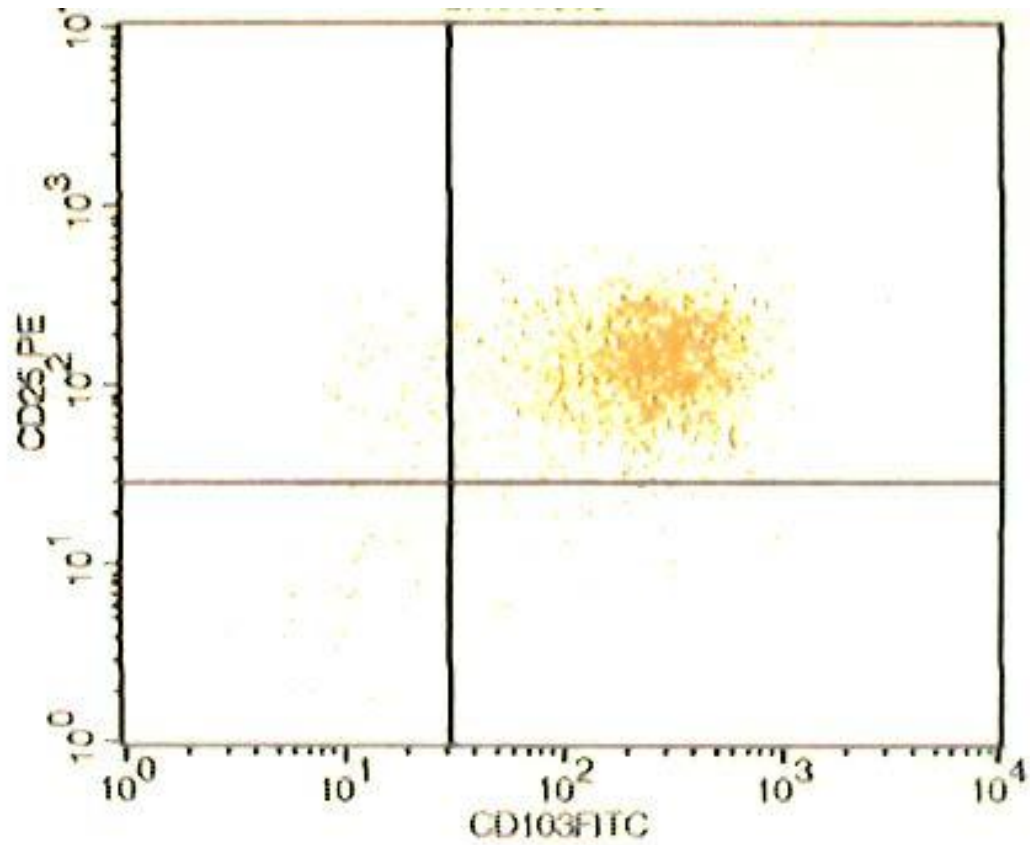
Flow Cytometry Study



Flow Cytometry Study



Flow Cytometry Study





Diagnosis

- Flow cytometry :
Lymphocytic subpopulation pos for
CD19, CD20, CD22, CD11c, CD25, CD103, FMC7, Lambda
restriction
(strong intensity of CD22, CD11c)
- DX: hairy cell leukemia
- Tests not performed:
 - Tartrate resistant acid phosphatase (TRAP)
 - Reticulin stain
 - EM

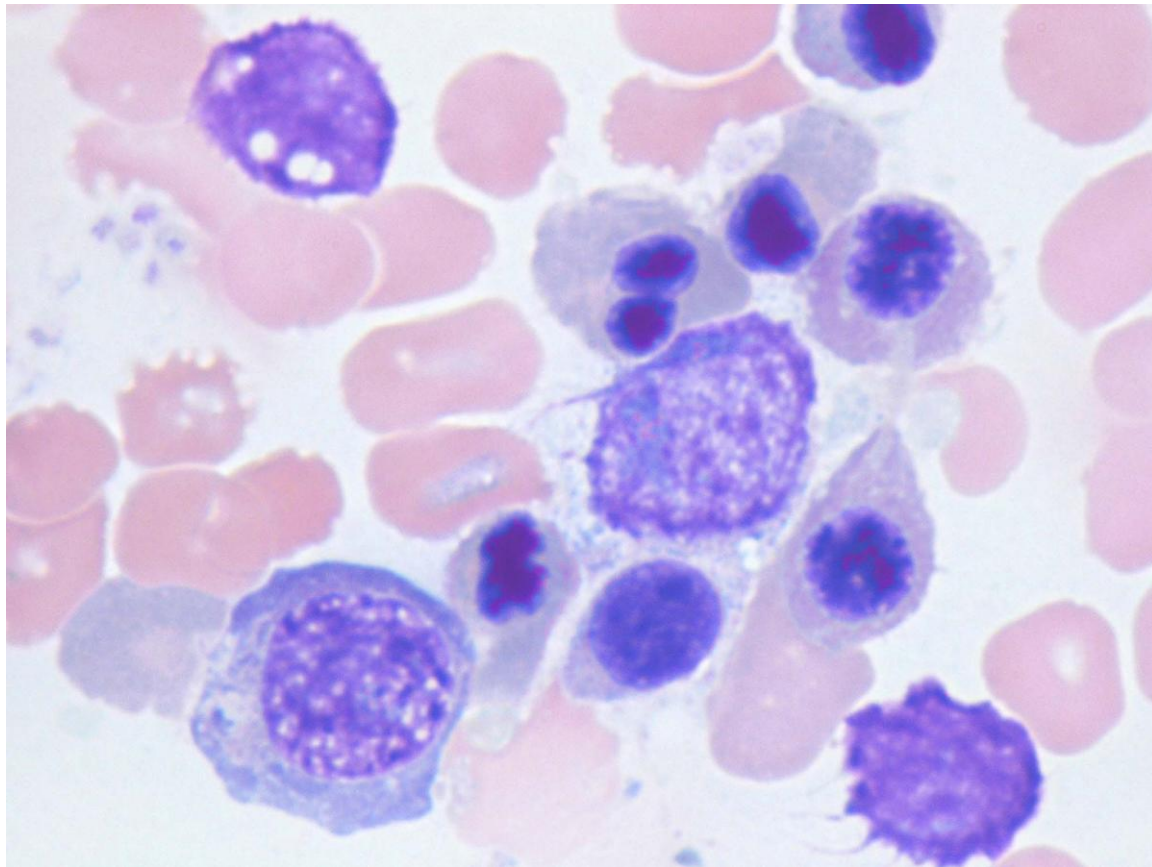


Bone Marrow Case

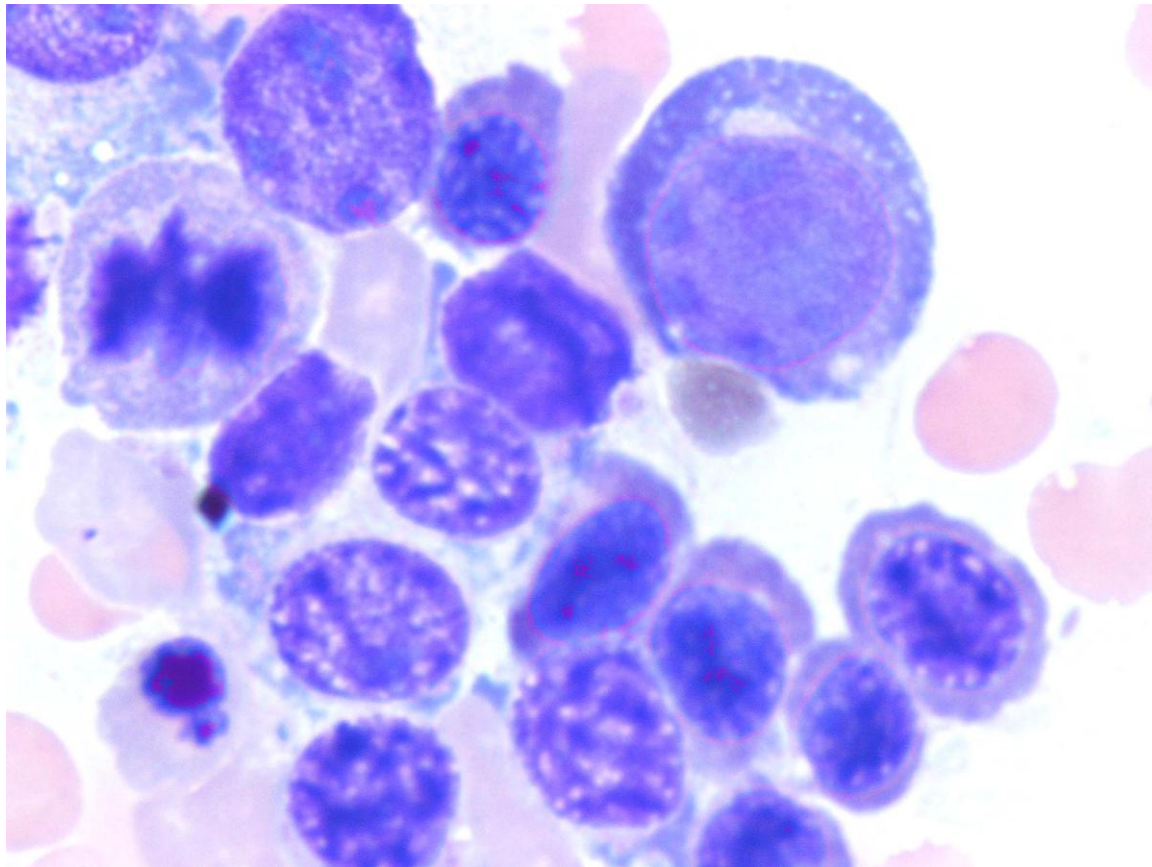
Patient: Gilxxx Curxxx

- 75 year-old African-American male with CLL, Status-post chemotherapy (last chemo on 4/26/03),
- Presented with neutropenic fever. Patient was started on neupogen and procrit.
- WBC=0.2, Hgb= 7.7, Plt=375, retic 2.1%
Lymph 76%
- Bone marrow biopsy: 20-30% cellularity, increased erythropoiesis. Presence of lymphocytic aggregate

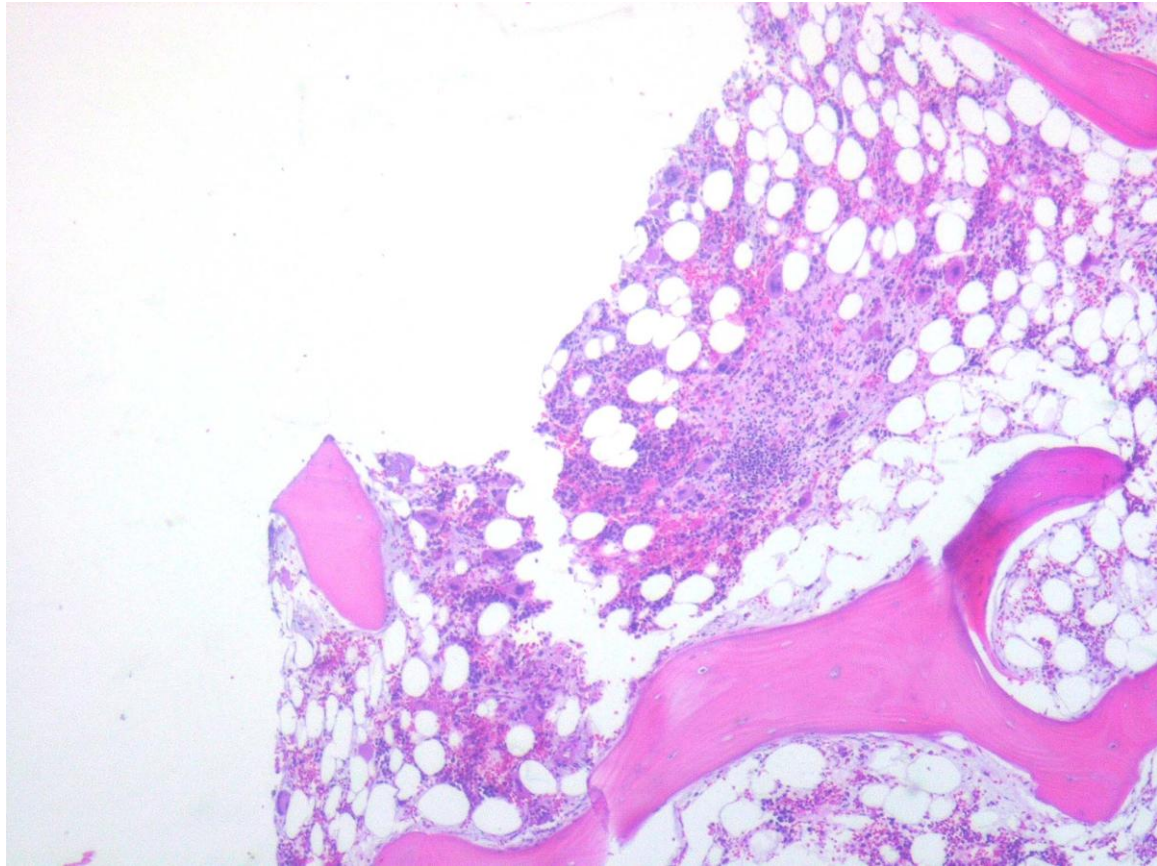
Bone Marrow Aspirate Smear



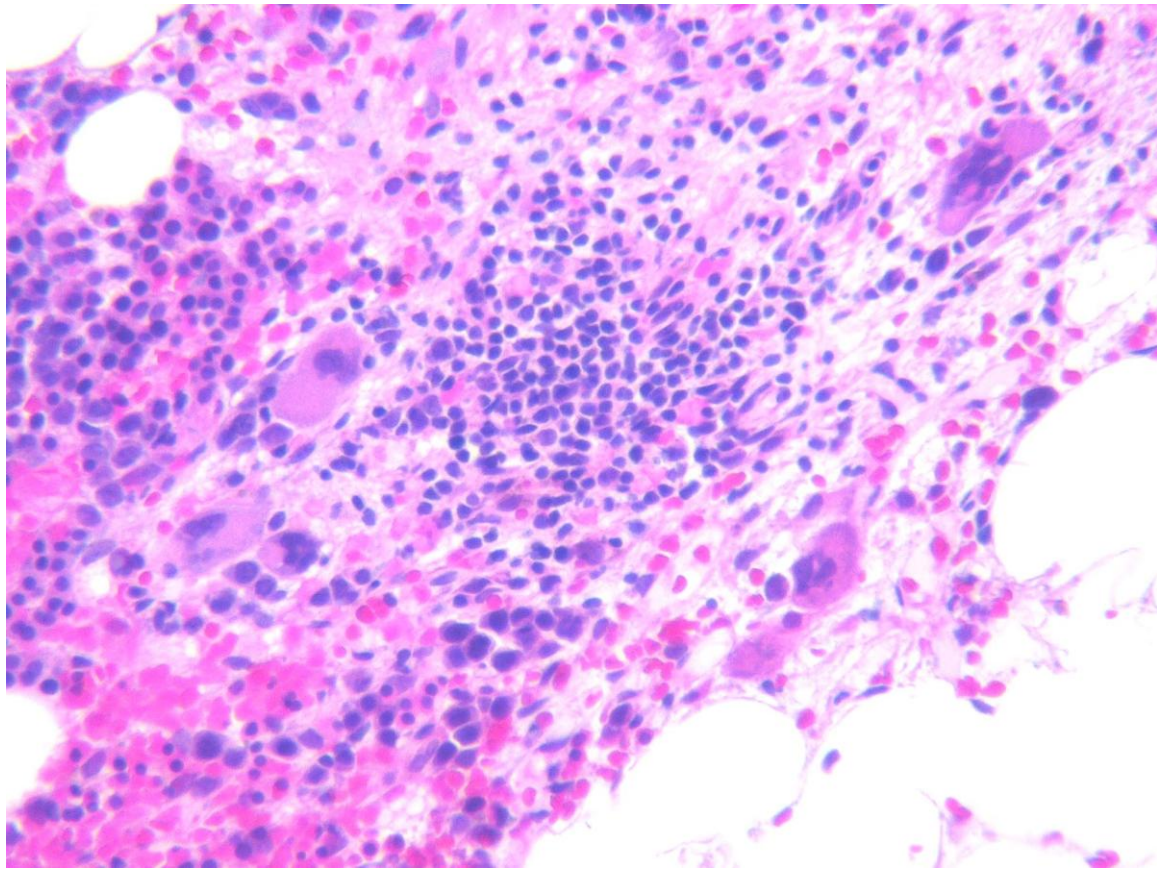
Bone Marrow Aspirate Smear (cont'd)



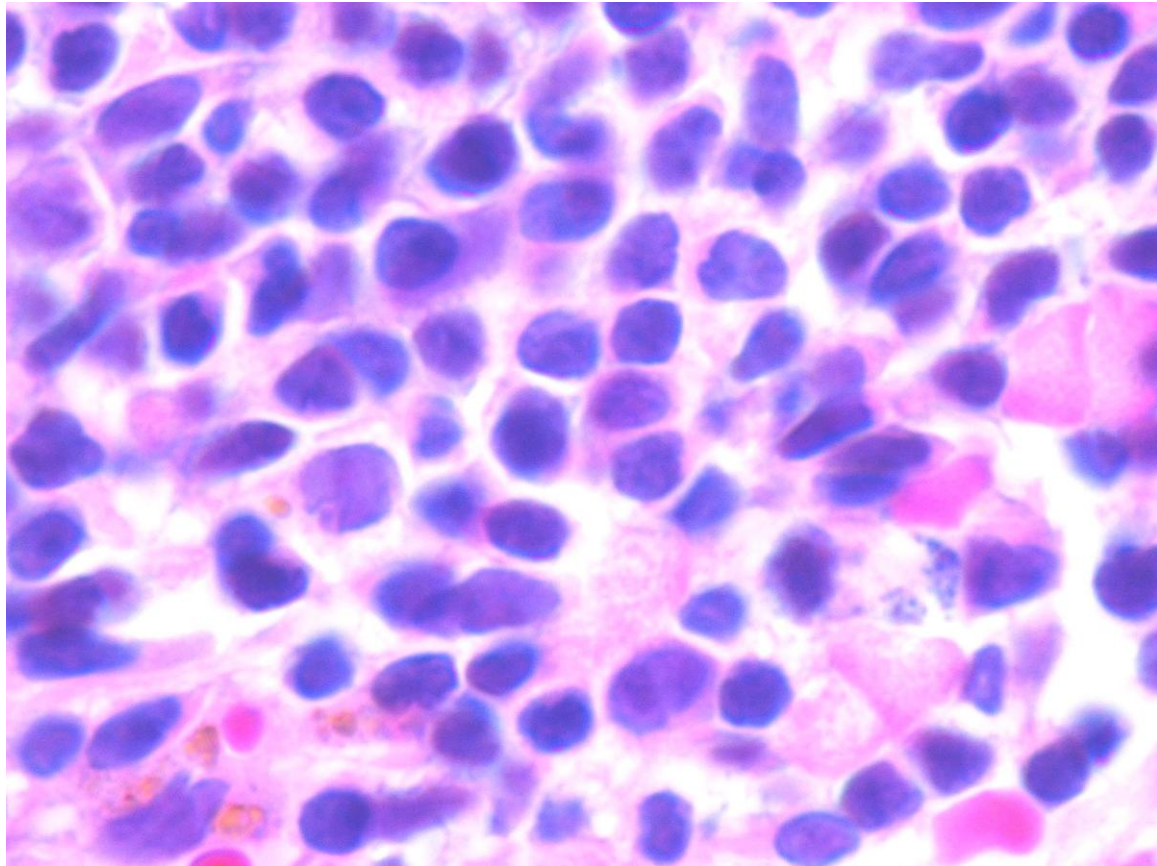
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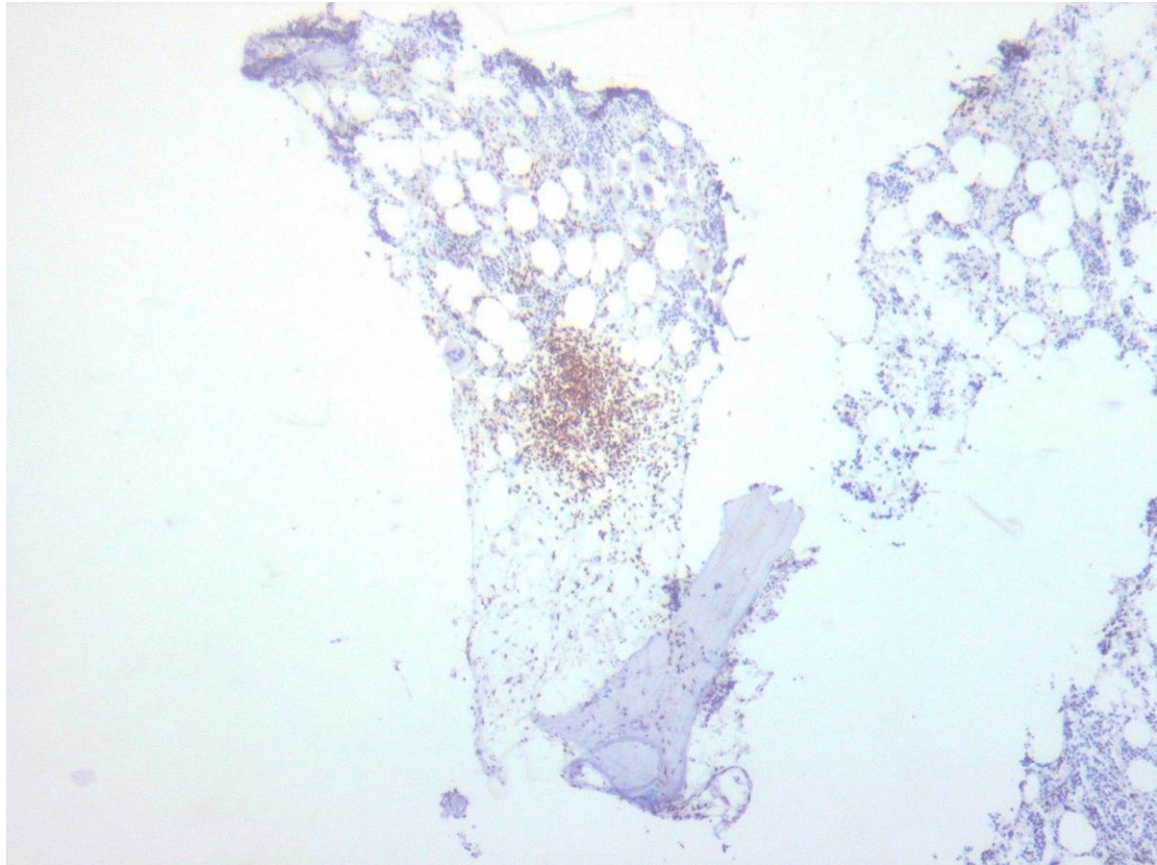
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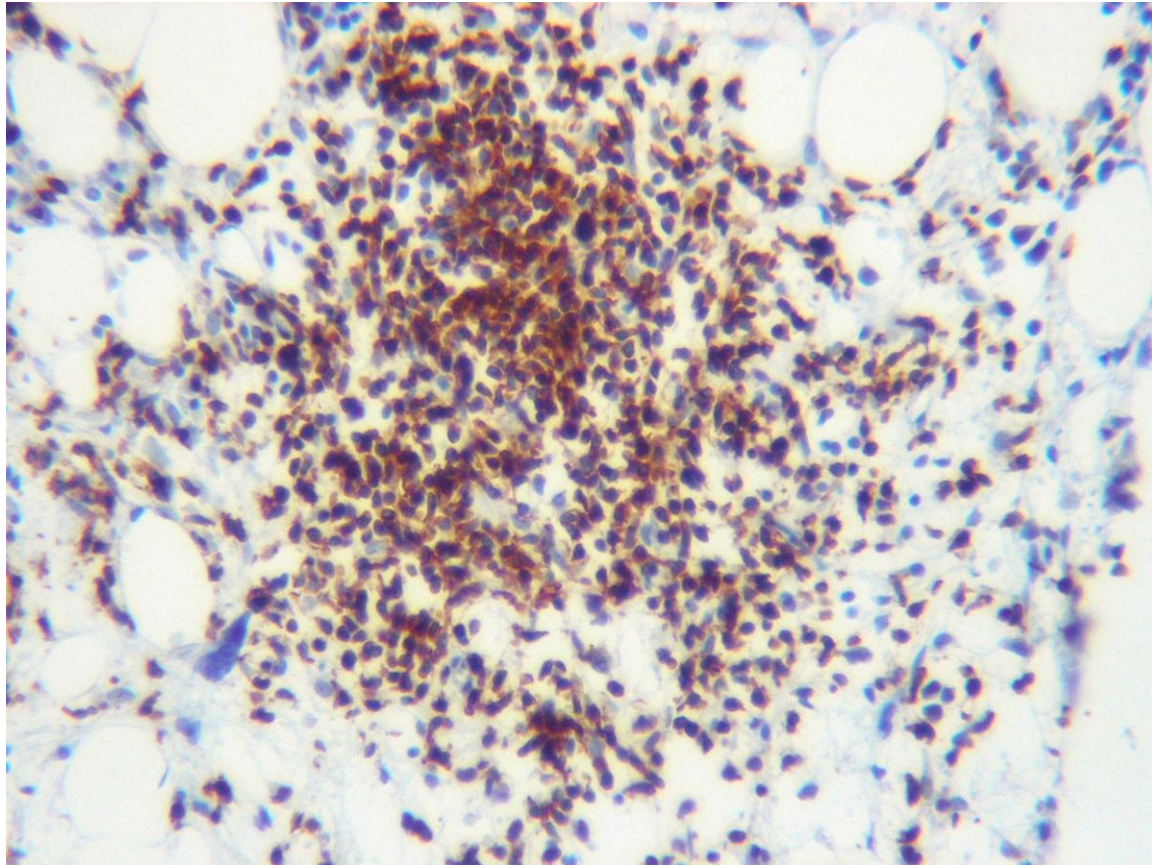
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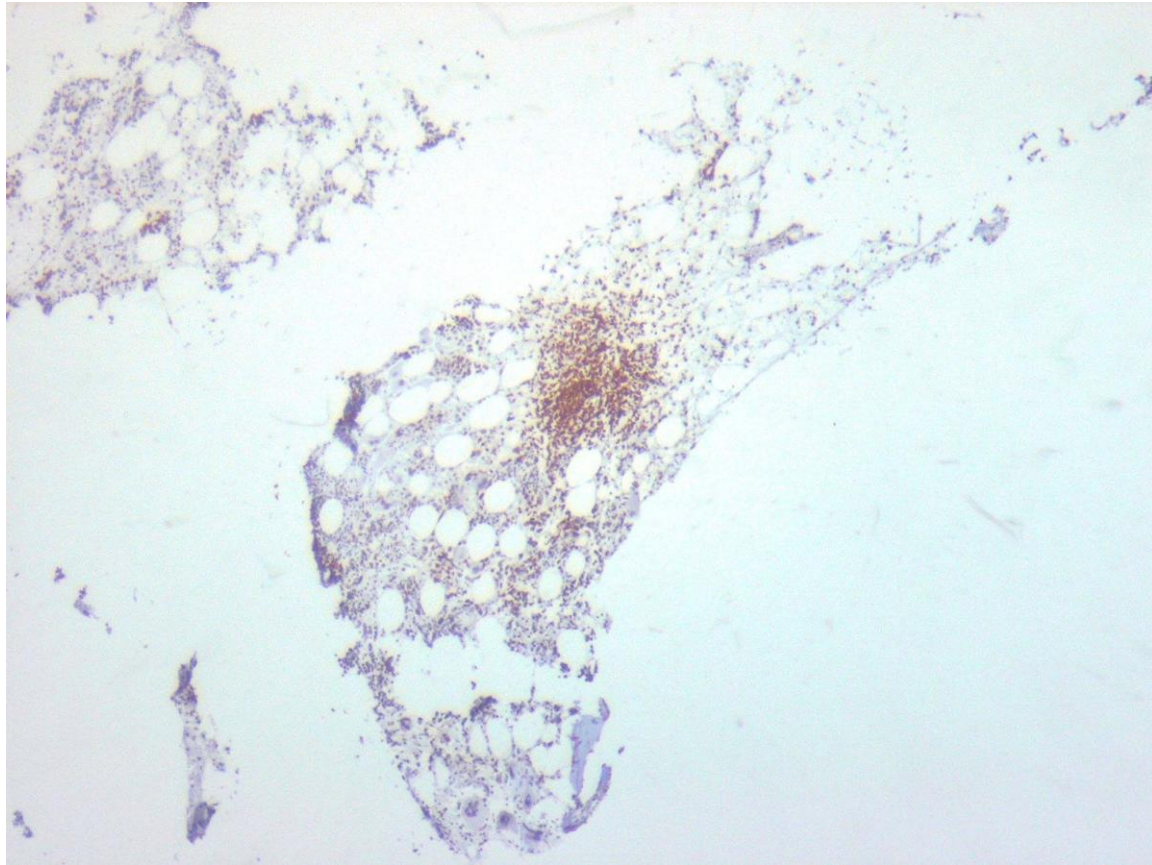
Immunostain CD3



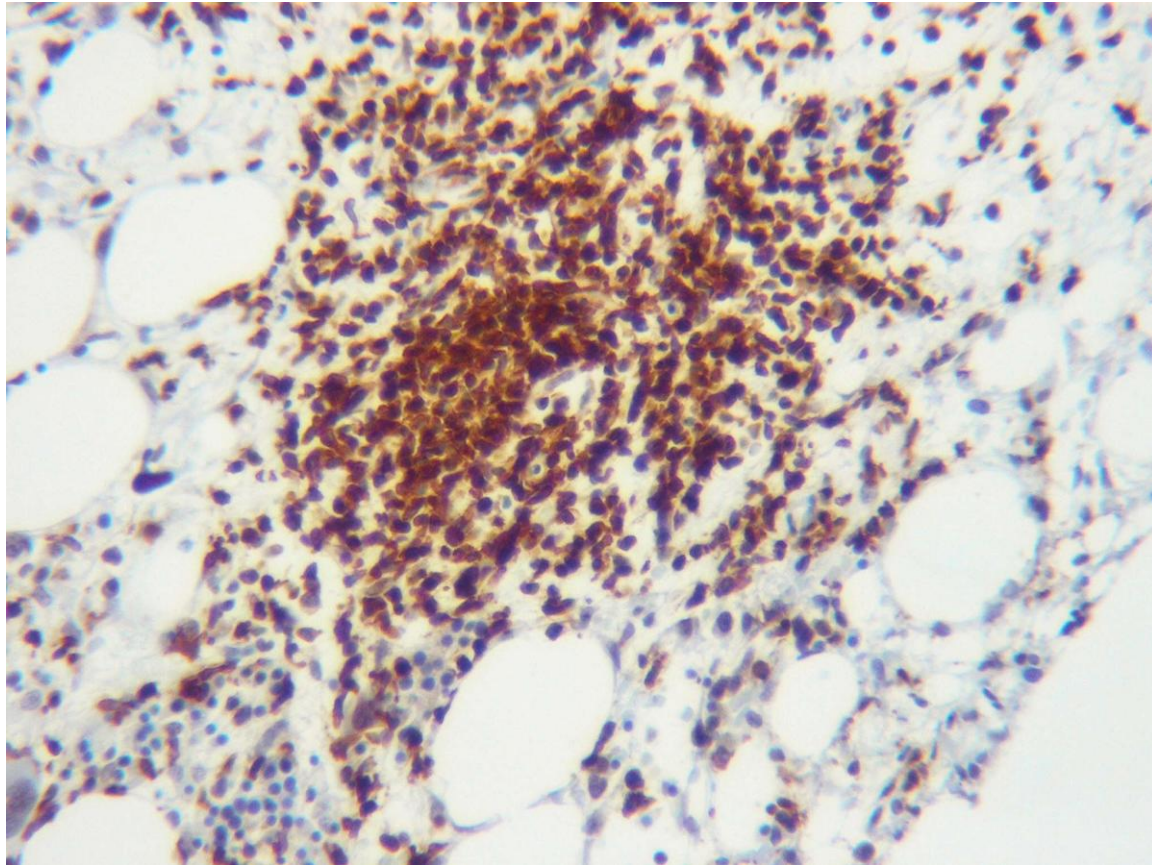
Immunostain CD3



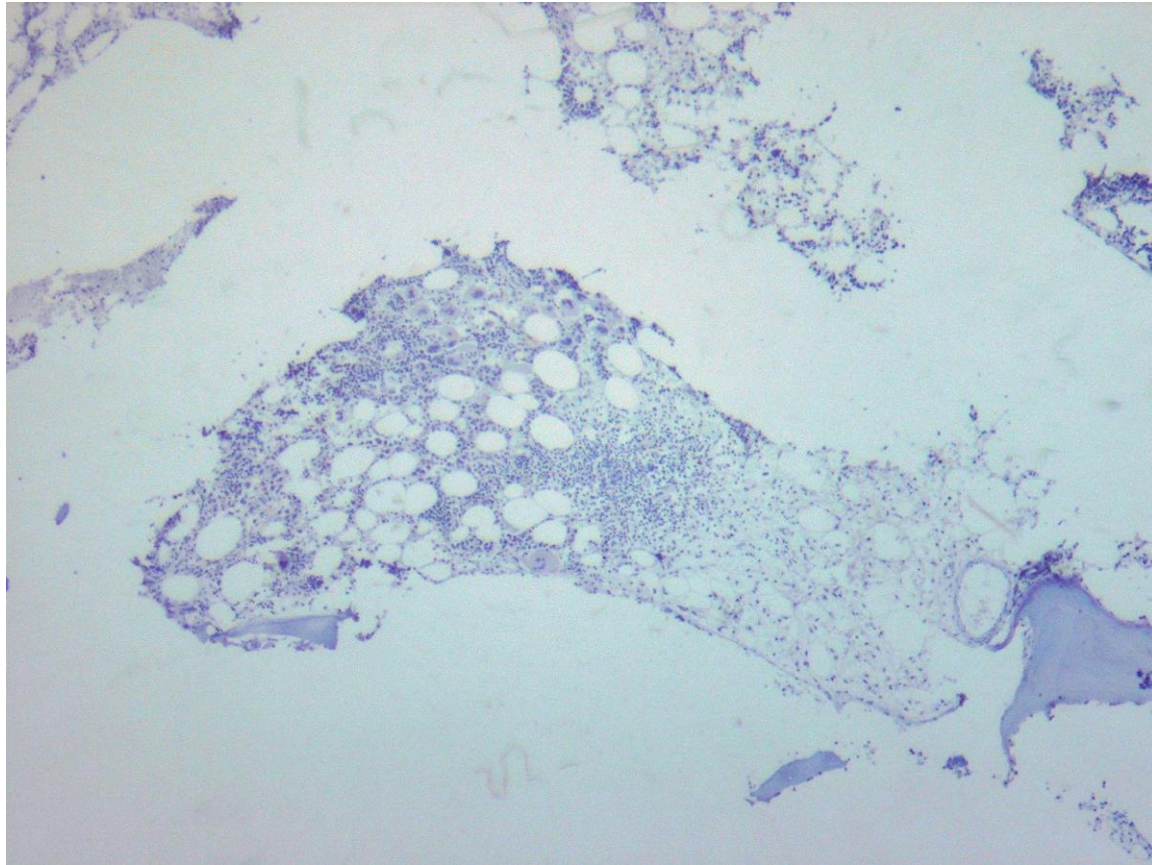
Immunostain CD5



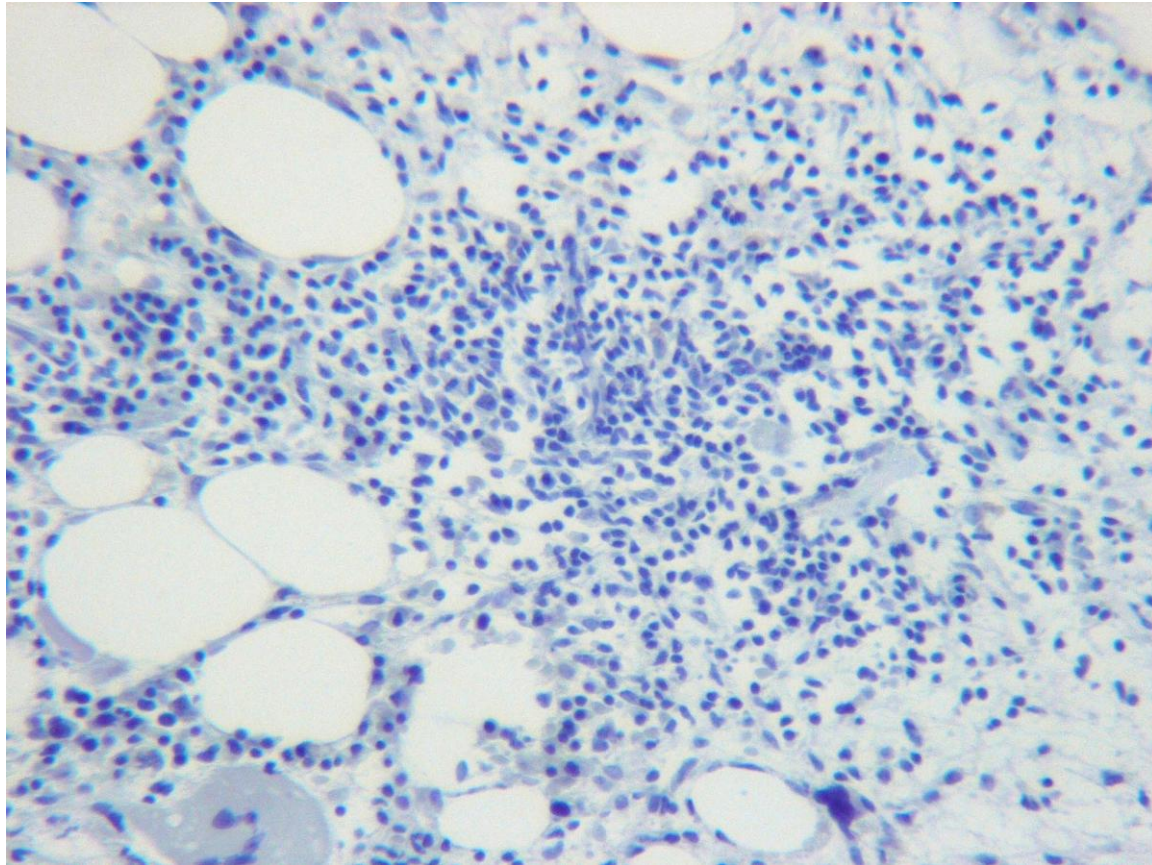
Immunostain CD5



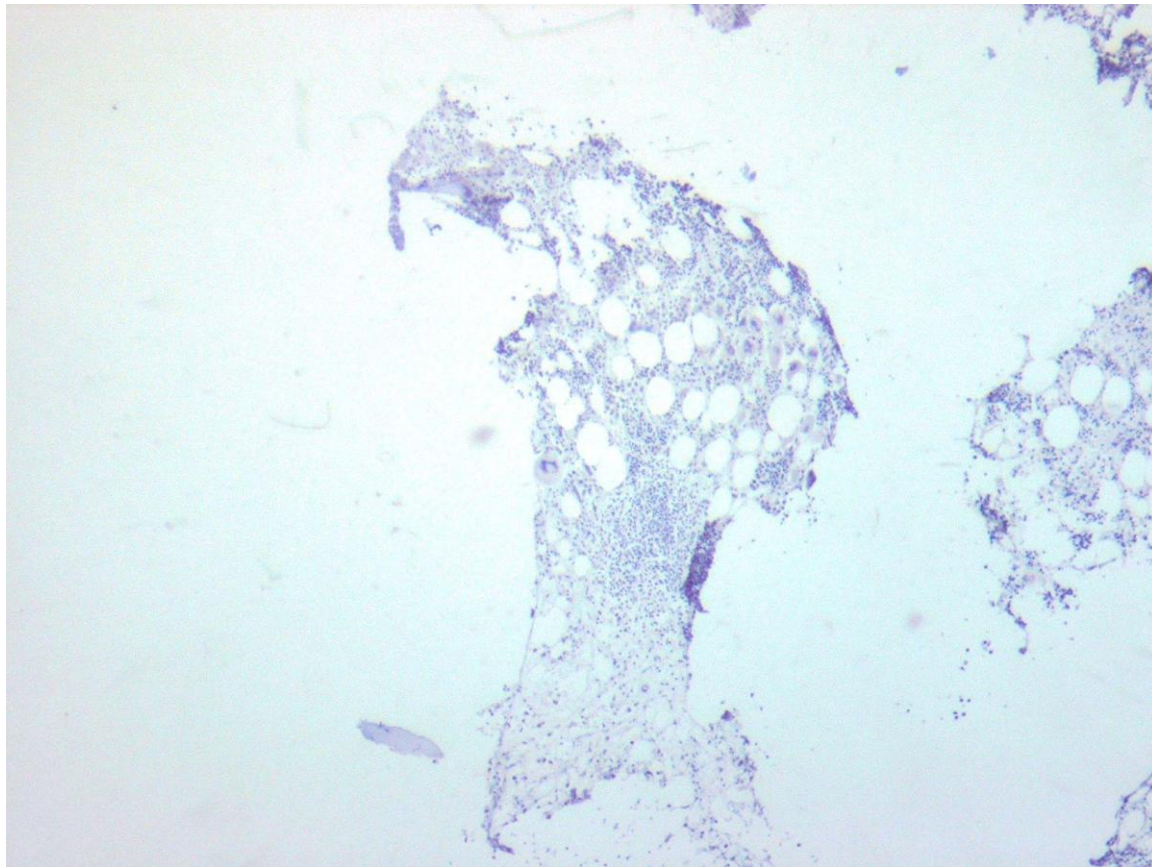
Immunostain CD20



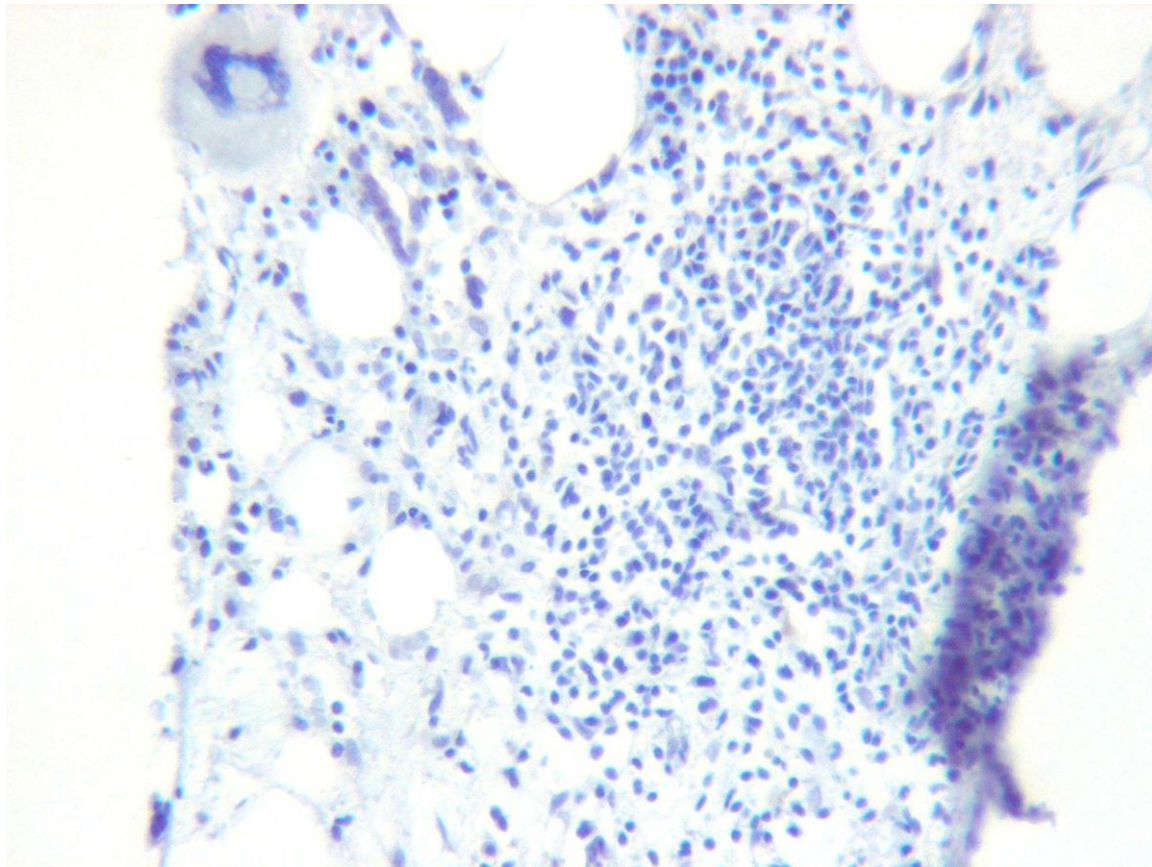
Immunostain CD20



Immunostain CD23



Immunostain CD23





Diagnosis

- Immunostains:
Lymphocytes in aggregate are
 - Pos: CD3, CD5
 - Neg: CD20, CD23

Note: residual CLL cells would be

- Pos: CD5, CD20, CD23
- Neg: CD3

- DX: benign lymphoid aggregate