



Peripheral Blood Smear Cases

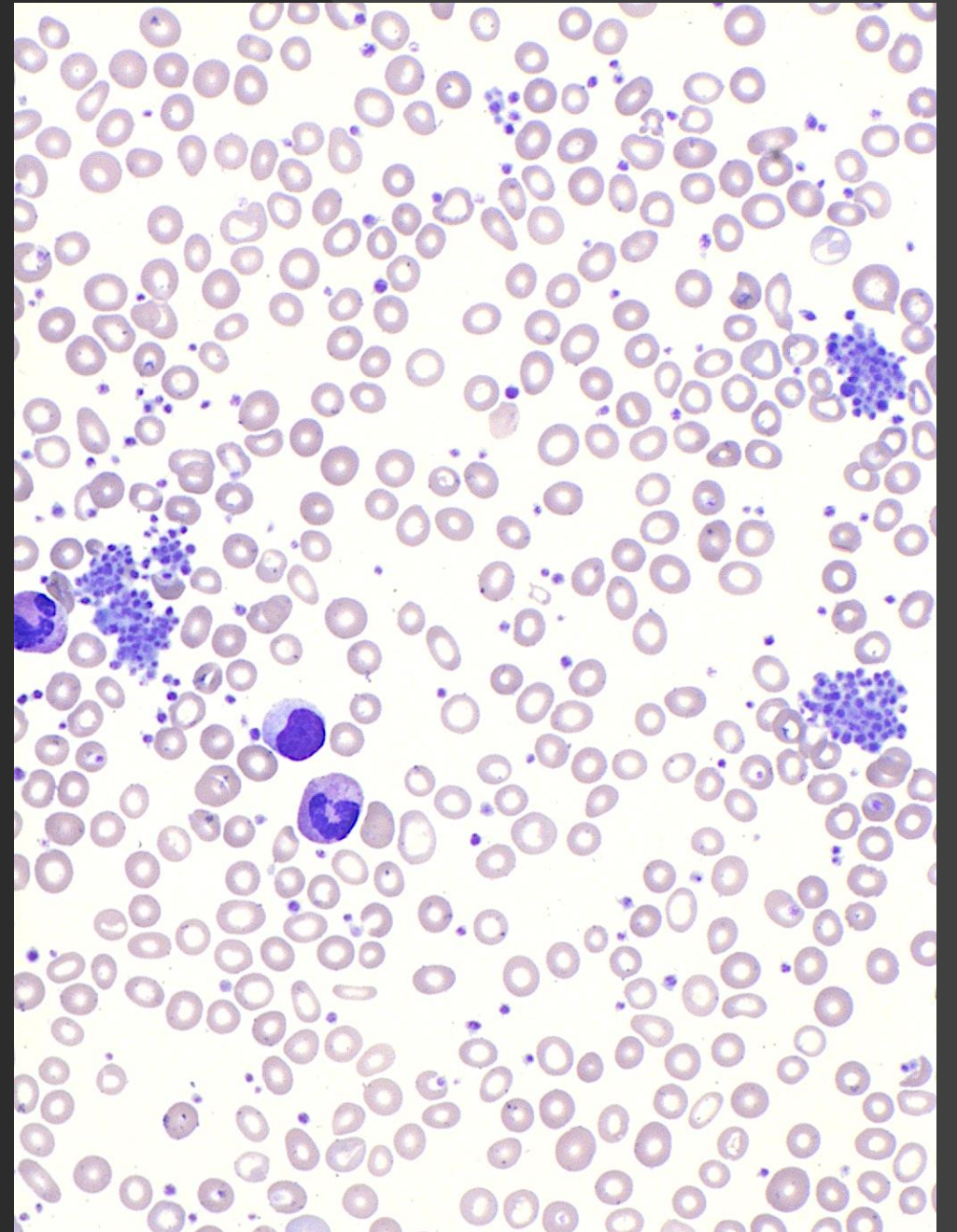
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Case 1.

An 18-year-old woman is diagnosed with anemia. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Anemia of inflammation
- B. Iron deficiency anemia
- C. Myelodysplastic syndrome
- D. Myelofibrosis
- E. Thalassemia



Case 2.

A 58-year-old man is evaluated for macrocytic anemia. He also has leukopenia and thrombocytopenia. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Folate deficiency
- B. Iron deficiency
- C. Myelodysplastic syndrome
- D. Vitamin B12 deficiency



Case 3.

A 50-year-old man is seen for progressive fatigue and dyspnea on exertion. Physical exam reveals mild sinus tachycardia and conjunctival pallor.

Labs reveal:

WBC 2.8

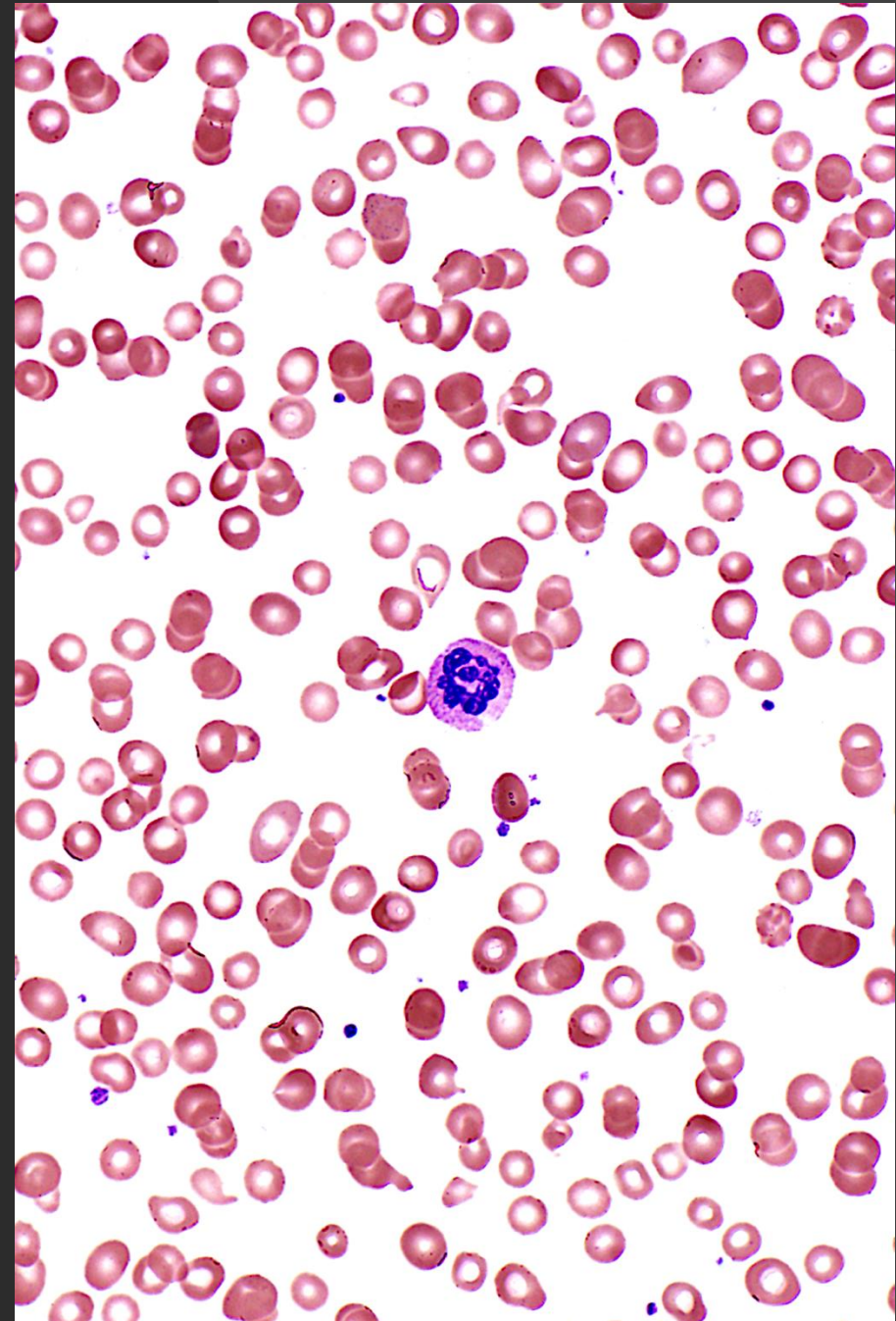
Hgb 5.9

Hct 18%

LDH 1200

Haptoglobin < 10

Absolute retic index: 1.5

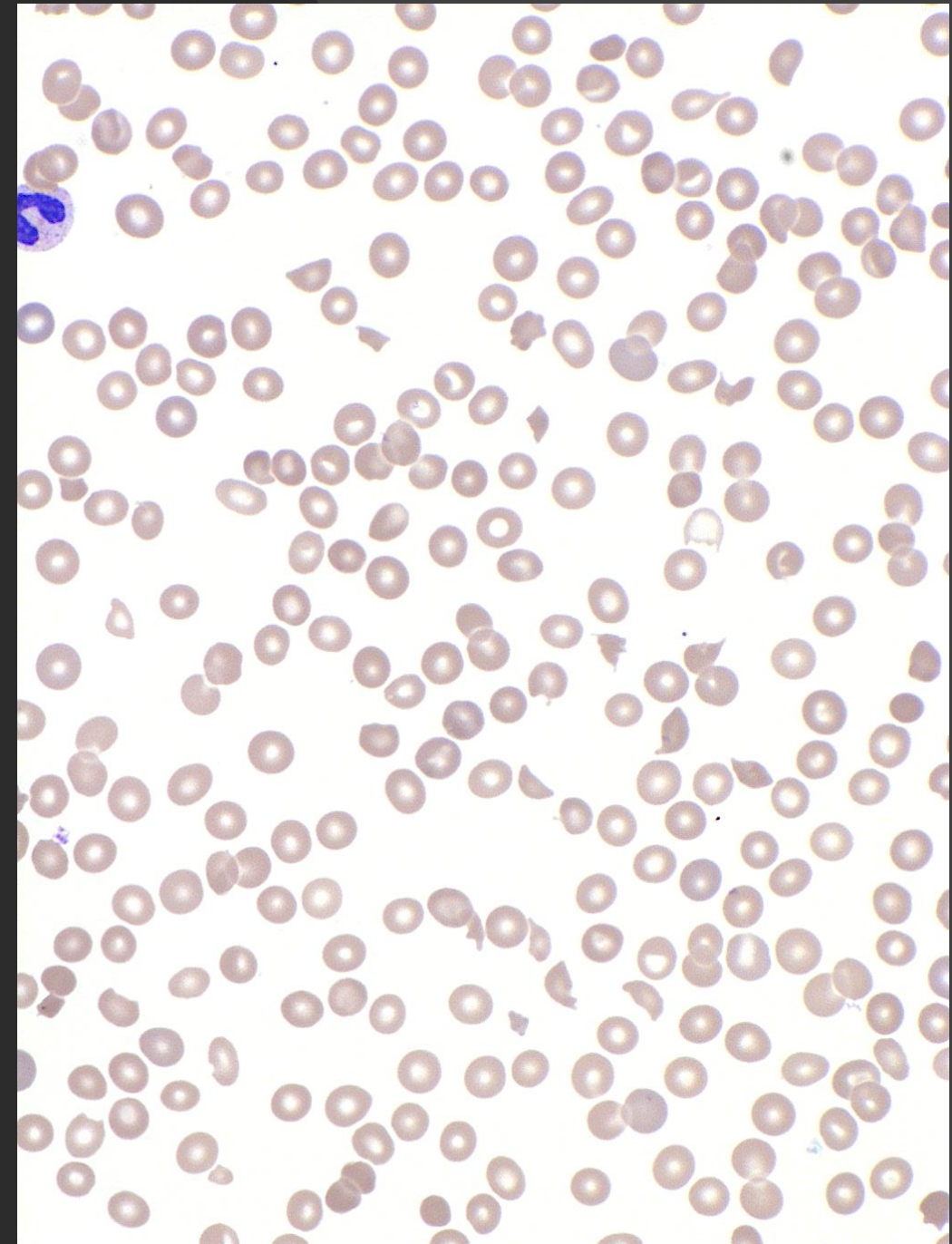


Case 4.

A 42-year-old man is admitted to the ICU with meningococcal sepsis. A peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Autoimmune hemolytic anemia
- B. Microangiopathic hemolytic anemia
- C. Paroxysmal nocturnal hemoglobinuria
- D. Sickle cell disease

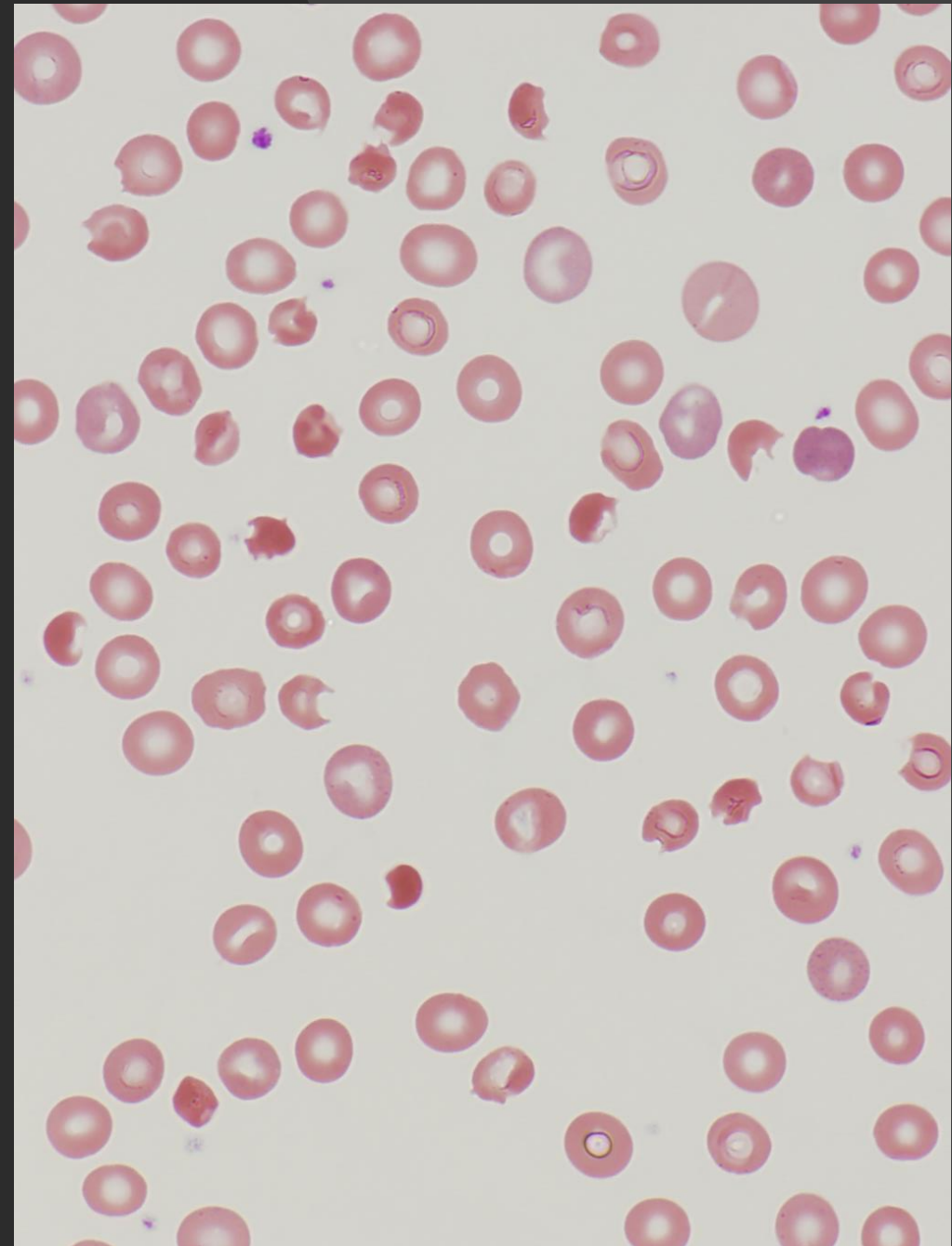


Case 5.

A 26-year-old man is evaluated following an episode of hemolytic anemia. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Anaplasmosis
- B. Babesiosis
- C. Glucose-6-phosphate dehydrogenase deficiency
- D. Warm autoimmune hemolytic anemia

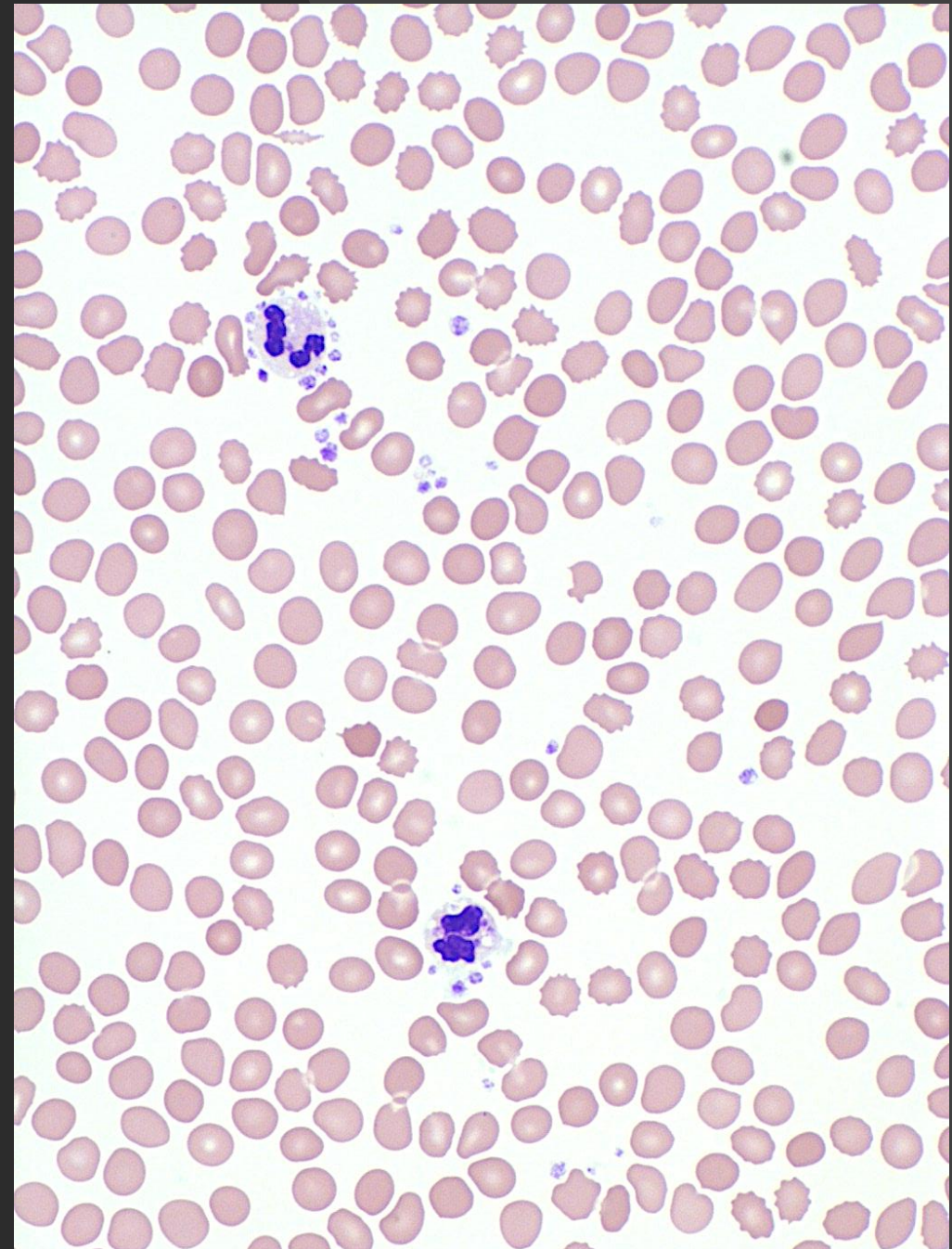


Case 6.

A 60-year-old man is seen for thrombocytopenia. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Evans syndrome
- B. Immune thrombocytopenic purpura
- C. Pseudothrombocytopenia
- D. Thrombotic thrombocytopenic purpura

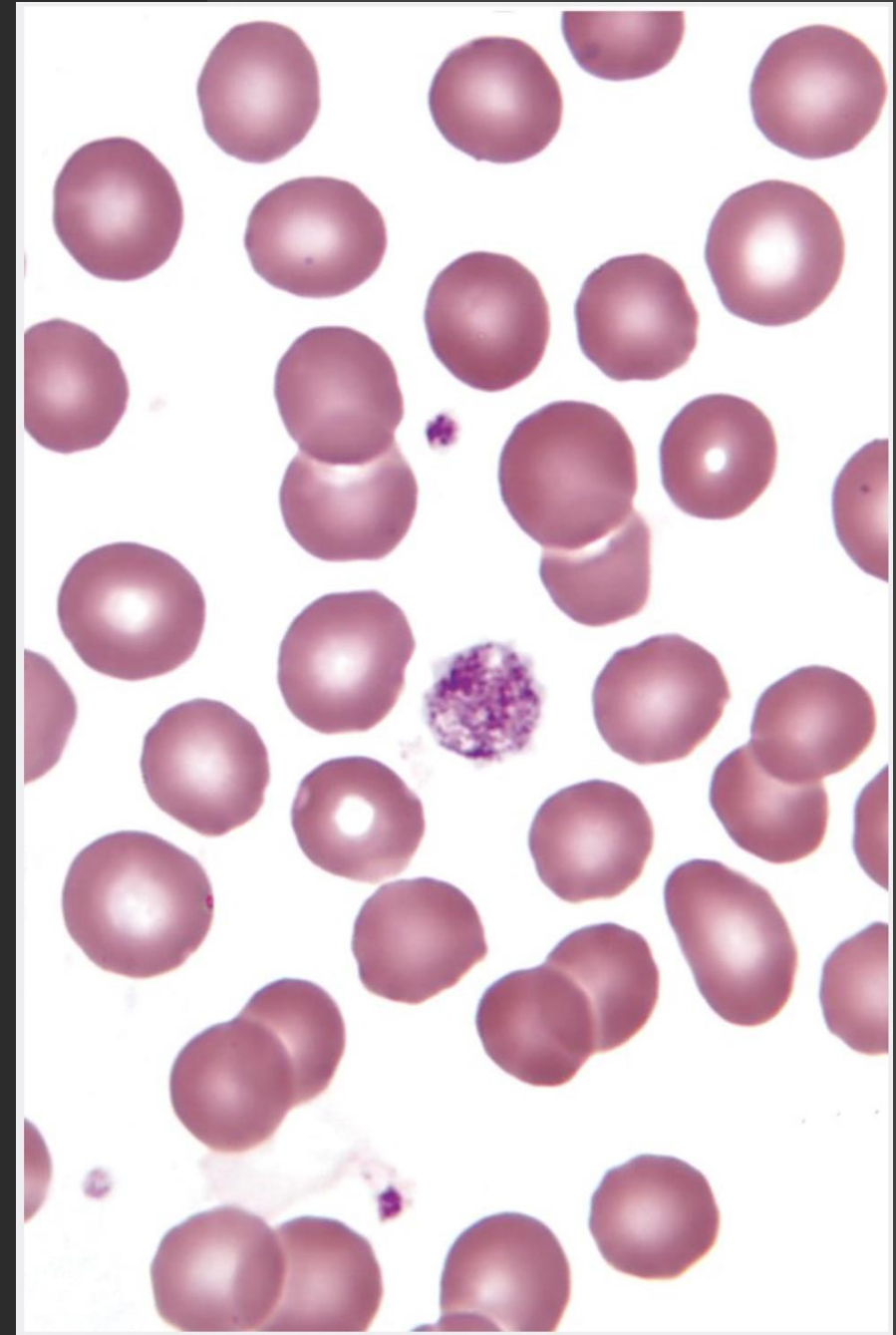


Case 7.

A 23-year-old woman is evaluated for recent onset of petechiae on the legs. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Disseminated intravascular coagulation
- B. Hemolytic uremic syndrome
- C. Immune thrombocytopenic purpura
- D. Thrombotic thrombocytopenic purpura

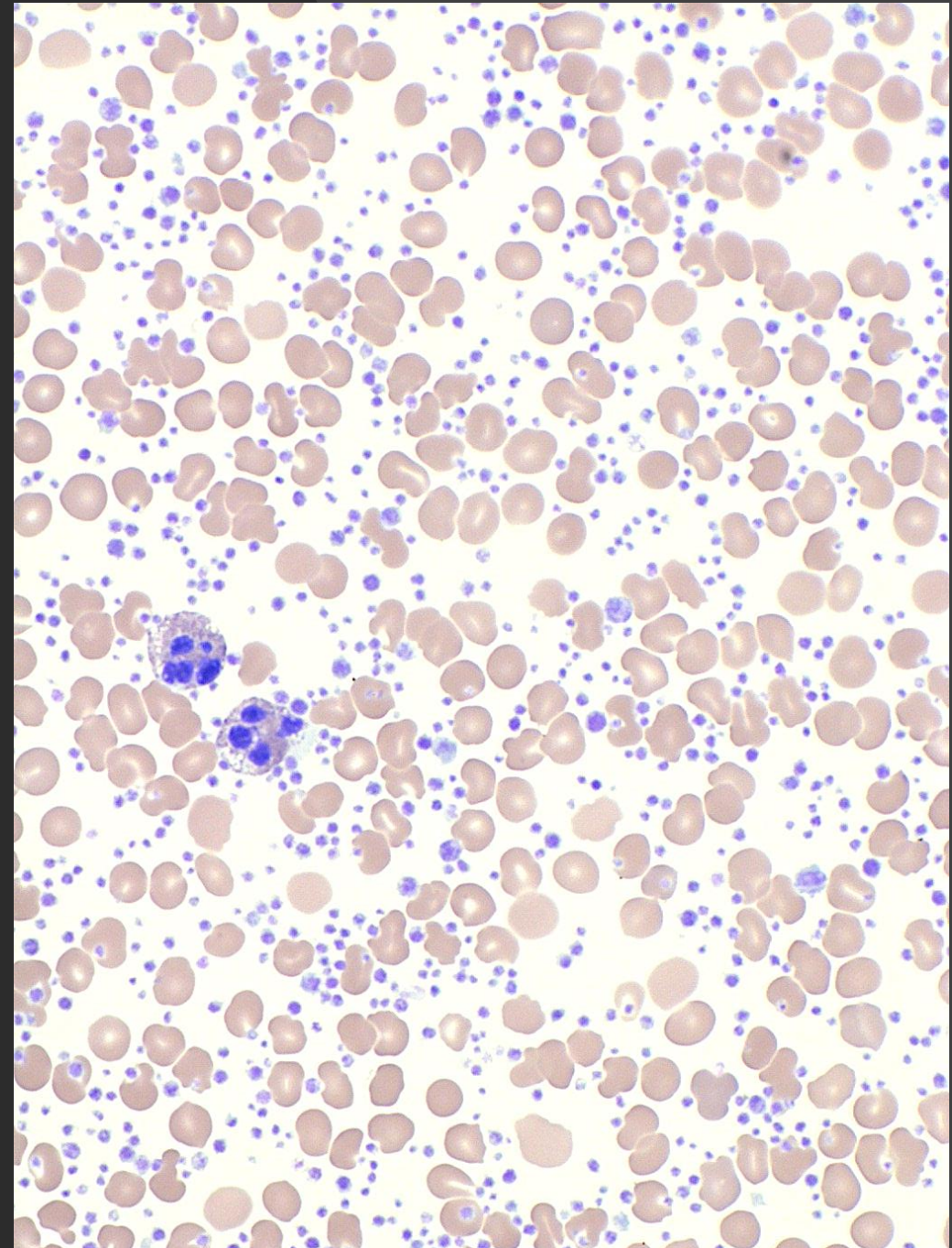


Case 8.

A 53-year-old man is evaluated after an abnormality was found on a routine complete blood count. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Chronic lymphocytic leukemia
- B. Essential thrombocythemia
- C. Folate deficiency
- D. Thrombotic thrombocytopenic purpura

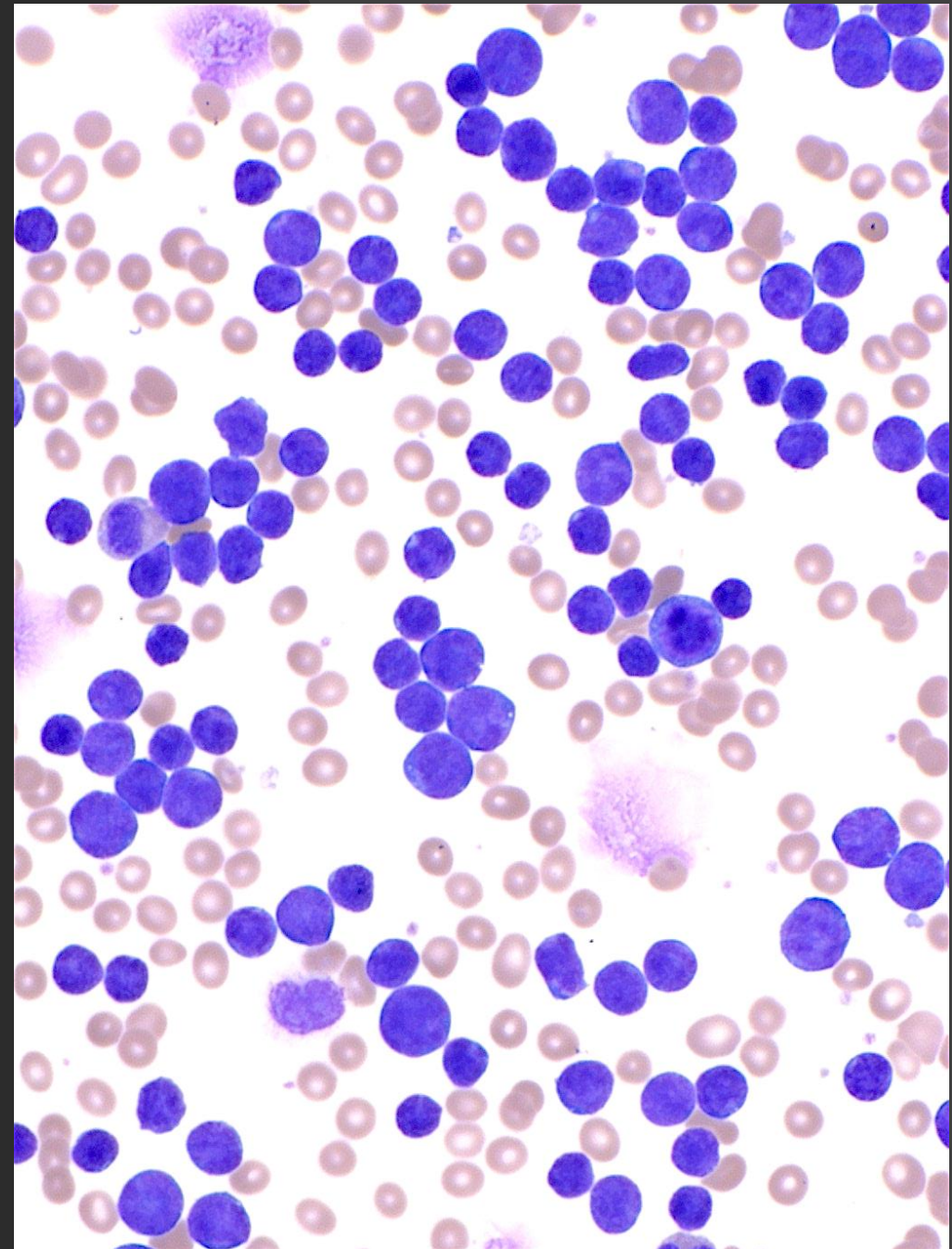


Case 9.

A 20-year-old man is evaluated for fever and malaise. Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Acute lymphoblastic leukemia
- B. Acute myeloid leukemia
- C. Acute promyelocytic leukemia
- D. Chronic myeloid leukemia

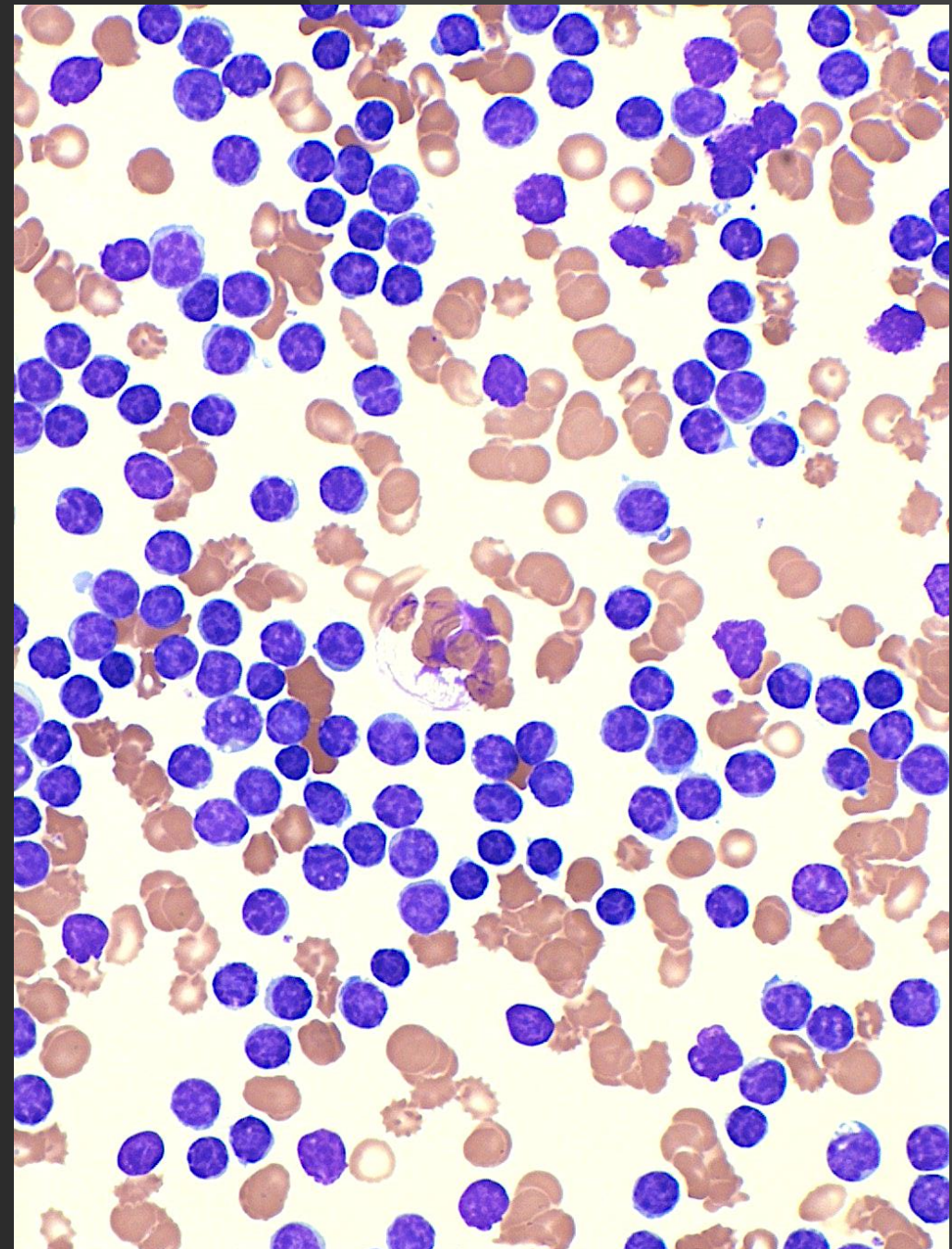


Case 10.

A 62-year-old woman is evaluated for headache and blurry vision. She is found to be hypoxic and to have diffuse lymphadenopathy and a WBC count of 700K/uL.

Which of the following is the most likely diagnosis?

- A. Chronic lymphocytic leukemia
- B. Epstein-Barr virus infection
- C. Hairy cell leukemia
- D. Multiple myeloma



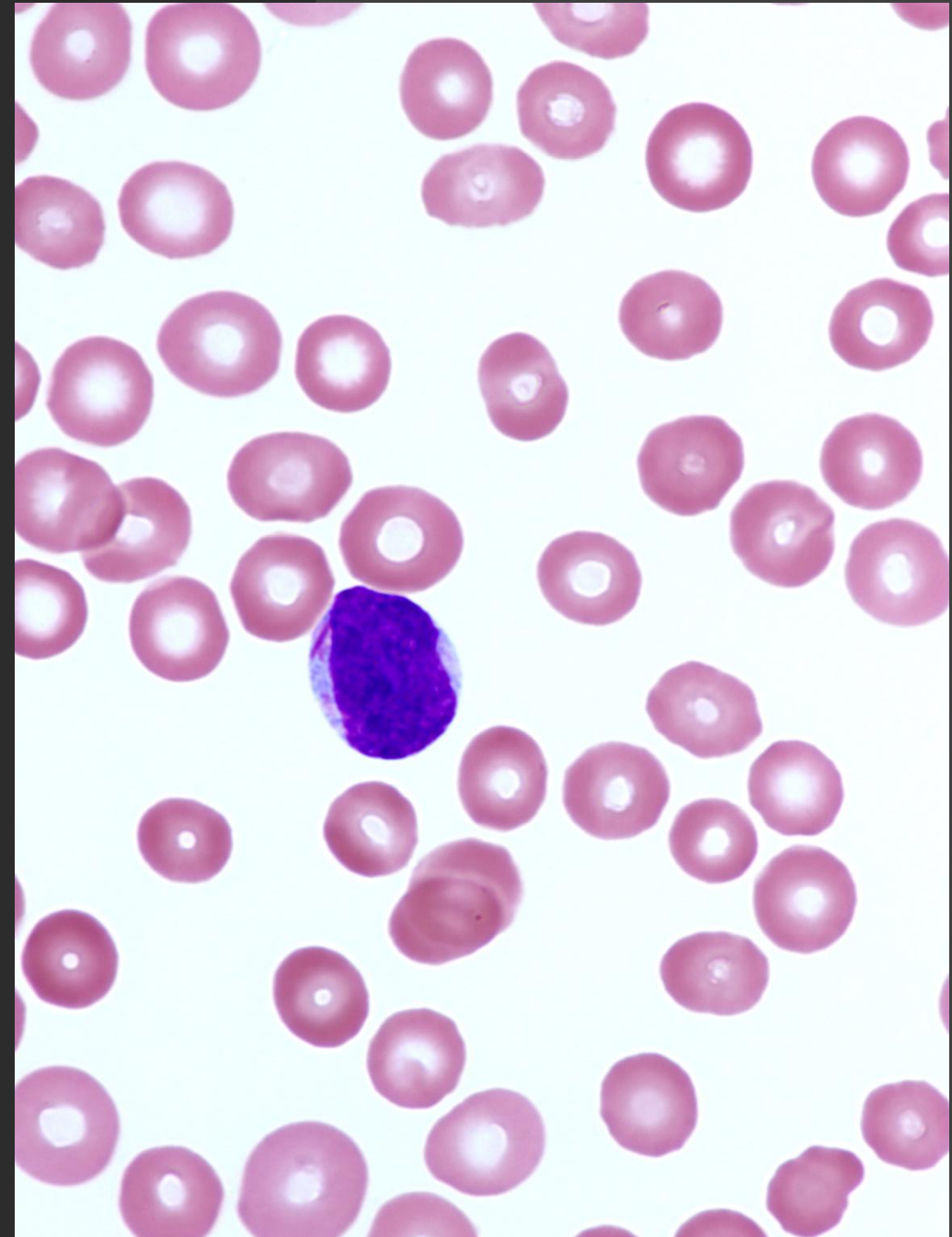
Case 11.

A 65-year-old man is evaluated for pancytopenia.

Peripheral smear is shown.

Which of the following is the most likely diagnosis?

- A. Acute lymphoblastic leukemia
- B. Acute myeloid leukemia
- C. Chronic myeloid leukemia
- D. Paroxysmal nocturnal hemoglobinuria

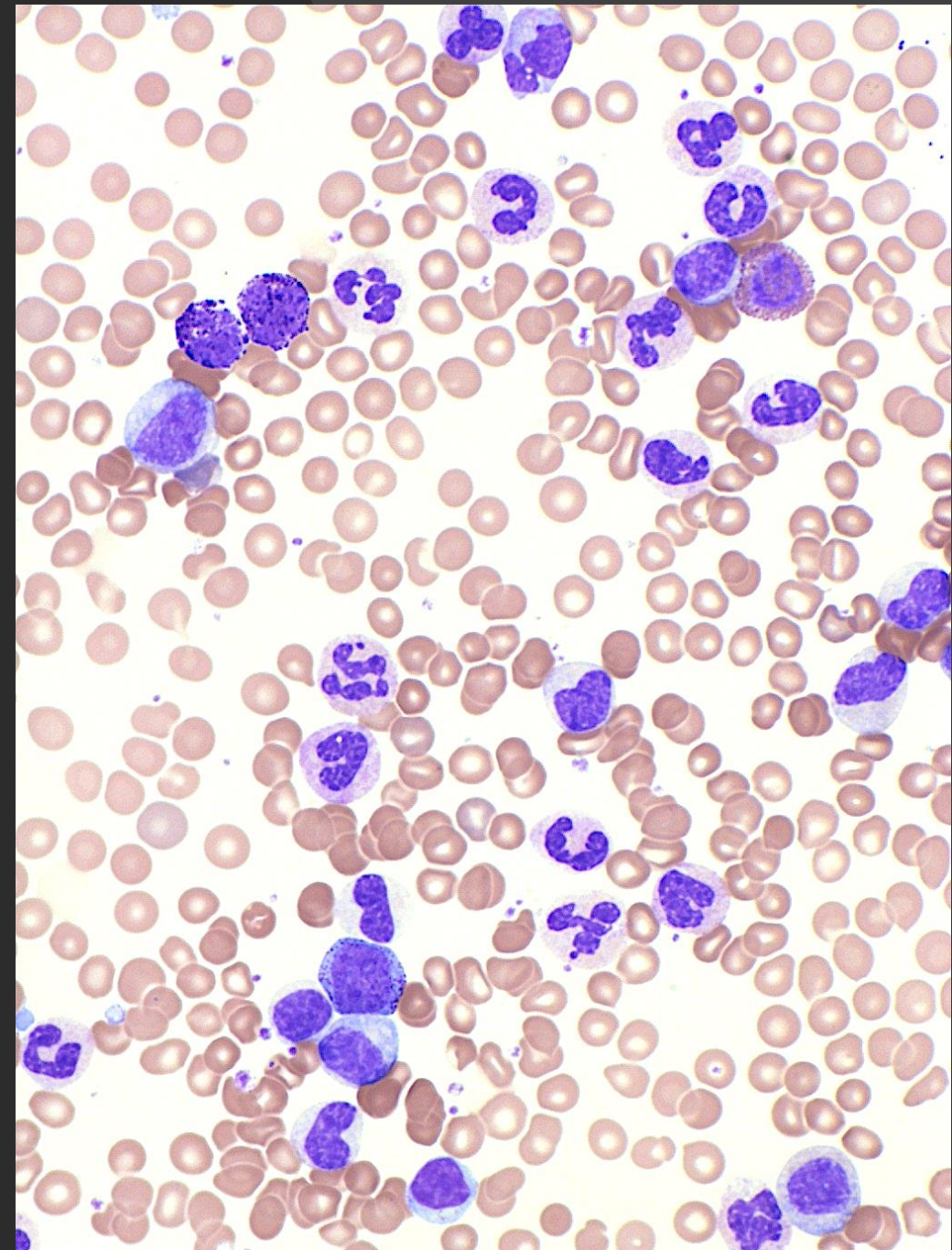


Case 12.

A 51-year-old woman is evaluated for fatigue, weight loss, fever, and splenomegaly. Peripheral smear of blood is shown.

Which of the following is the most likely diagnosis?

- A. Chronic myeloid leukemia
- B. Essential thrombocythemia
- C. Polycythemia vera
- D. Primary myelofibrosis



Case 13.

A 67-year-old woman is evaluated for anemia and hypercalcemia. Peripheral blood smear is shown.

Which of the following is the most likely diagnosis?

- A. Cold agglutinin disease
- B. Multiple myeloma
- C. Paroxysmal nocturnal hemoglobinuria
- D. Polycythemia vera

