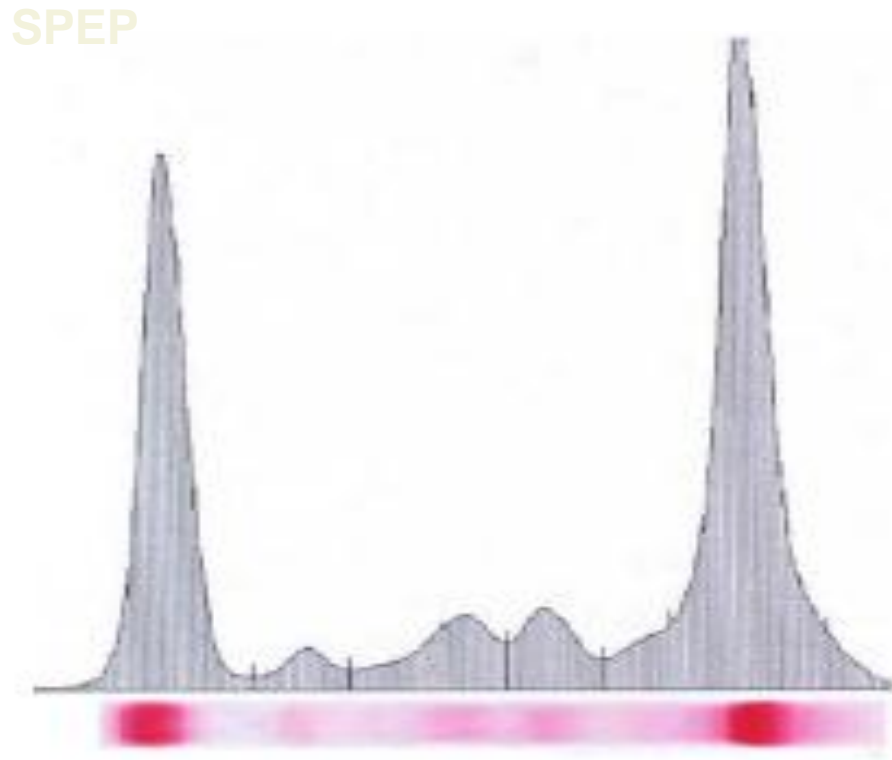
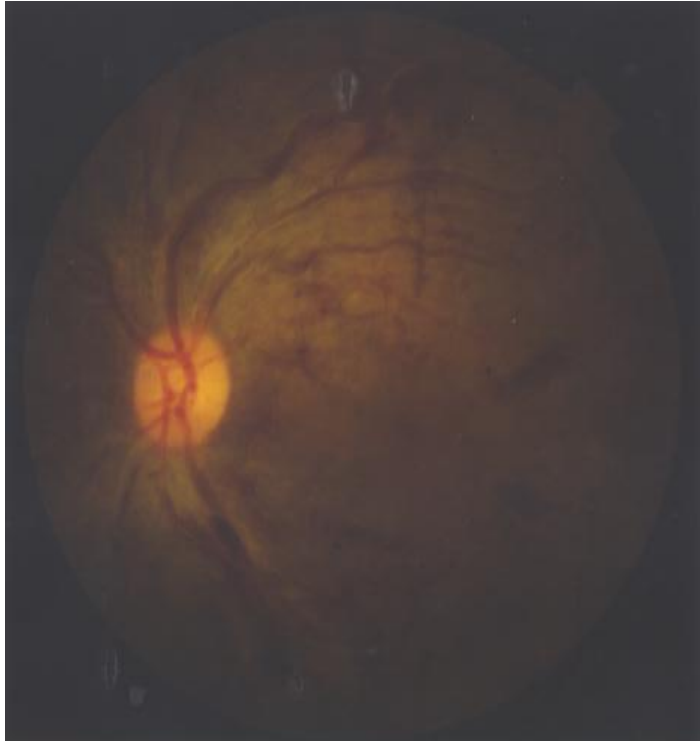
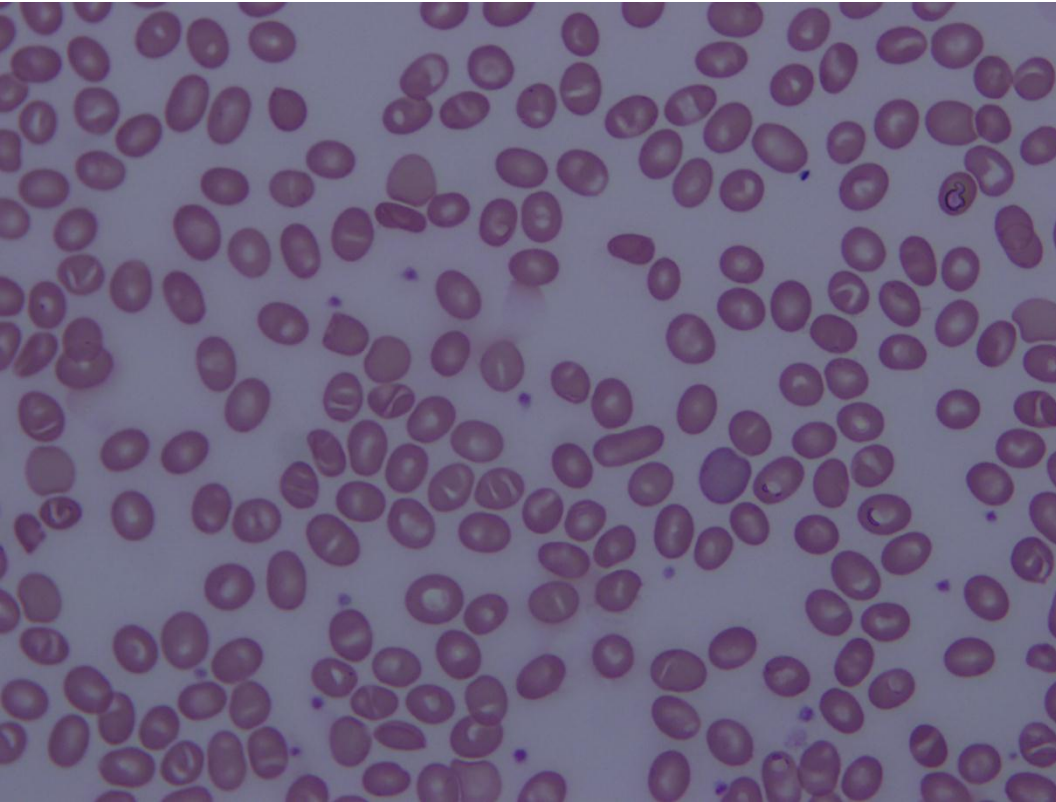


17. ผู้ชาย 50 ปี อ่อนเพลียมา 3 เดือน ปวดศีรษะ ตามัวมา 2 วัน



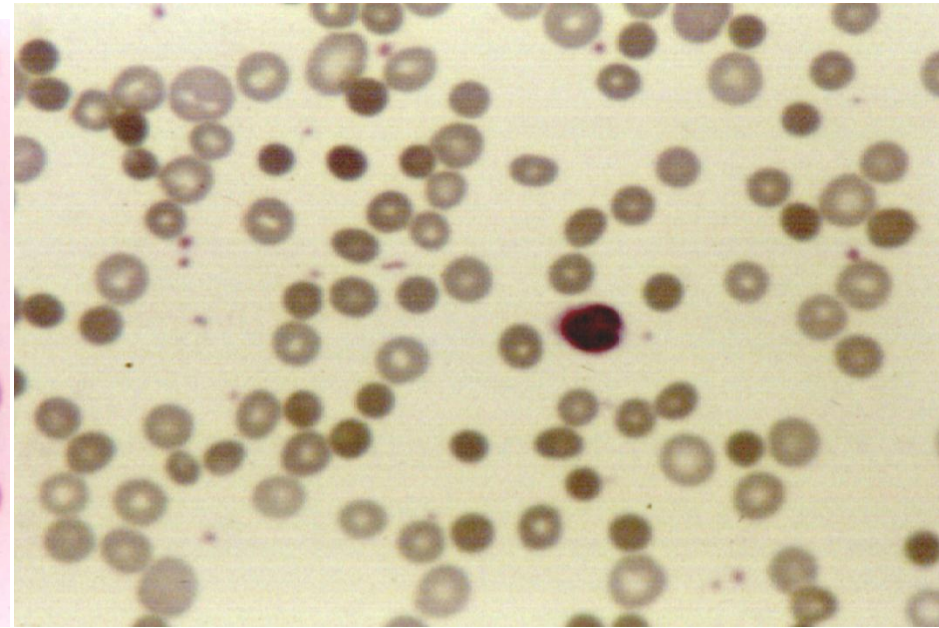
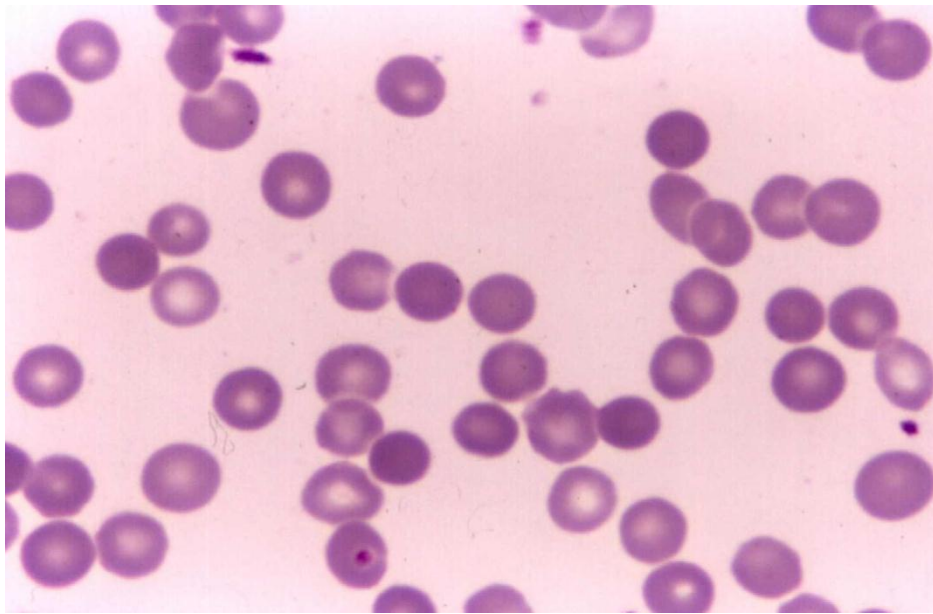
- A. Multiple myeloma
- B. Infective endocarditis
- C. Lymphoplasmacytic lymphoma
- D. Antiphospholipid antibody syndrome
- E. Nephrotic syndrome with retinal vein thrombosis

18. A 3-yr-boy with renal tubular acidosis.

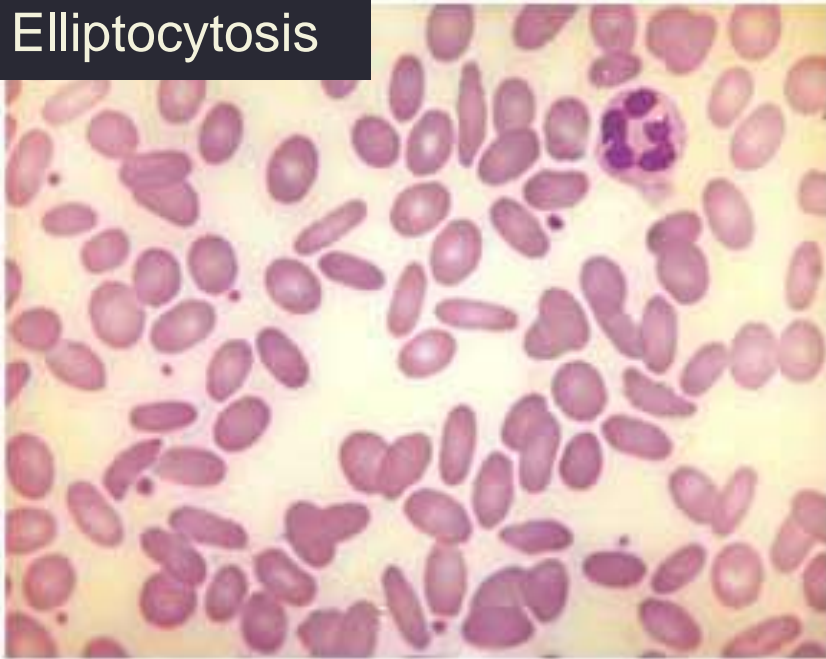


- A. Ankyrin
- B. Spectrin α
- C. Spectrin β
- D. Band 3
- E. Protein 4.2

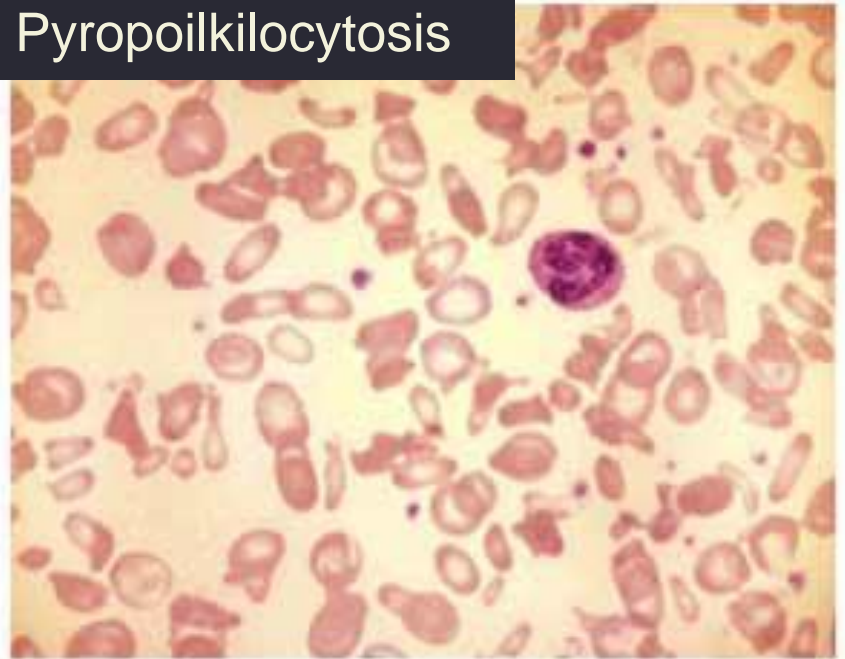
HS vs. AIHA



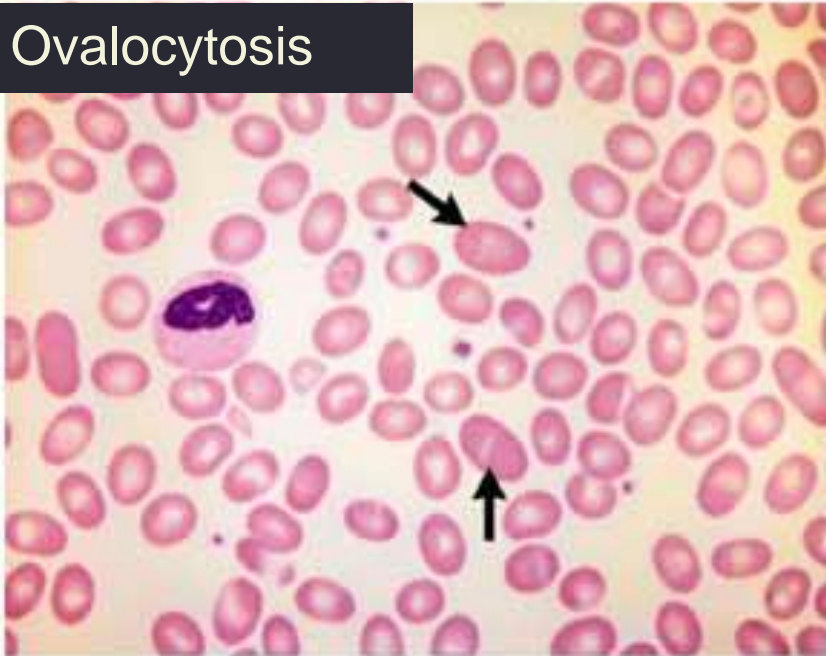
Elliptocytosis



Pyropoikilocytosis



Ovalocytosis



Spherocytosis



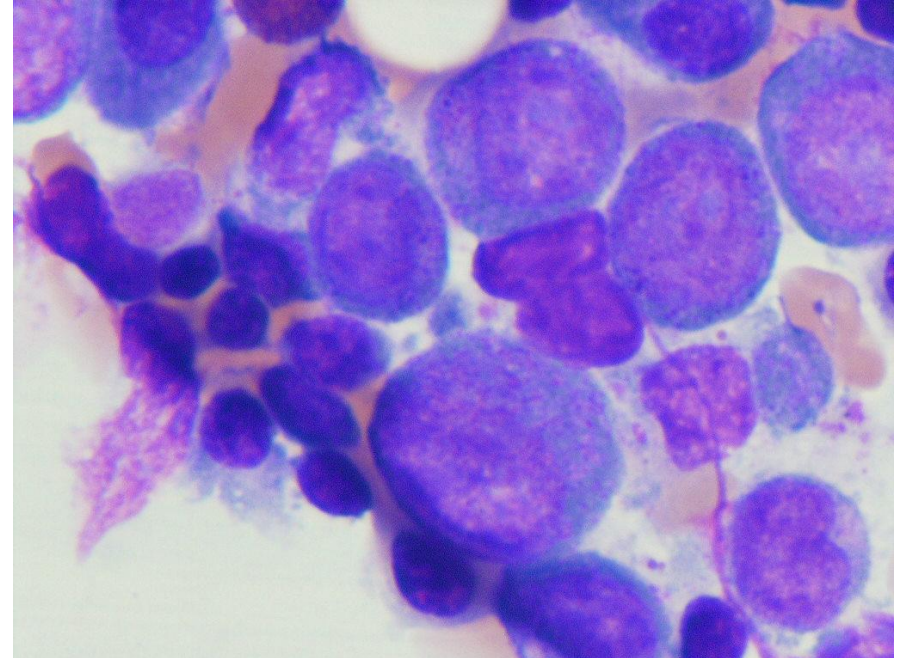
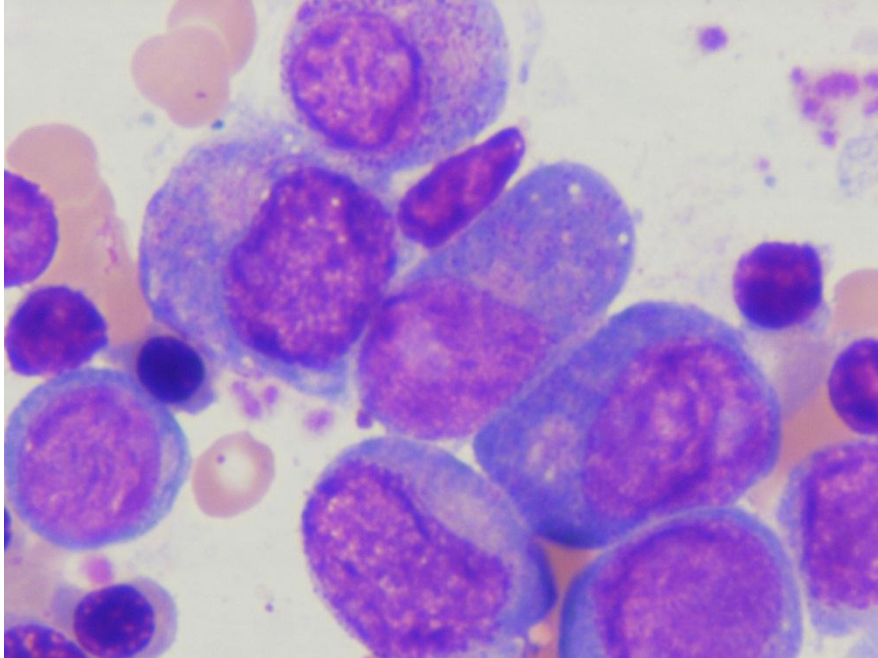
Gene	Disorder	Comment
Ankyrin	HS	Most common cause of HS (AD)
Band 3	HS, SAO	SAO due to 9 AA deletion
α spectrin	HS, HE, HPP	Location of mutation in spectrin determines clinical phenotype. Most common cause of HE.
β spectrin	HS, HE, HPP	Acanthocytic spherocytes
Protein 4.2	HS	Common in Japan (AR)
Protein 4.1	HE	Uncommon

HS = Hereditary spherocytosis, HE = Hereditary Elliptocytosis

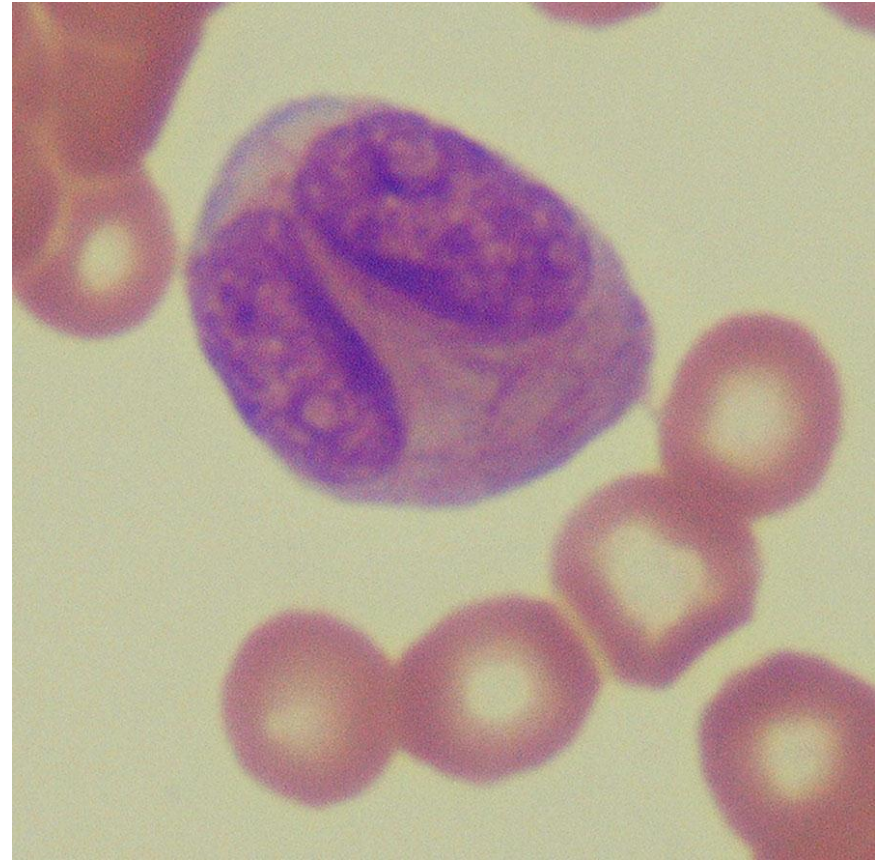
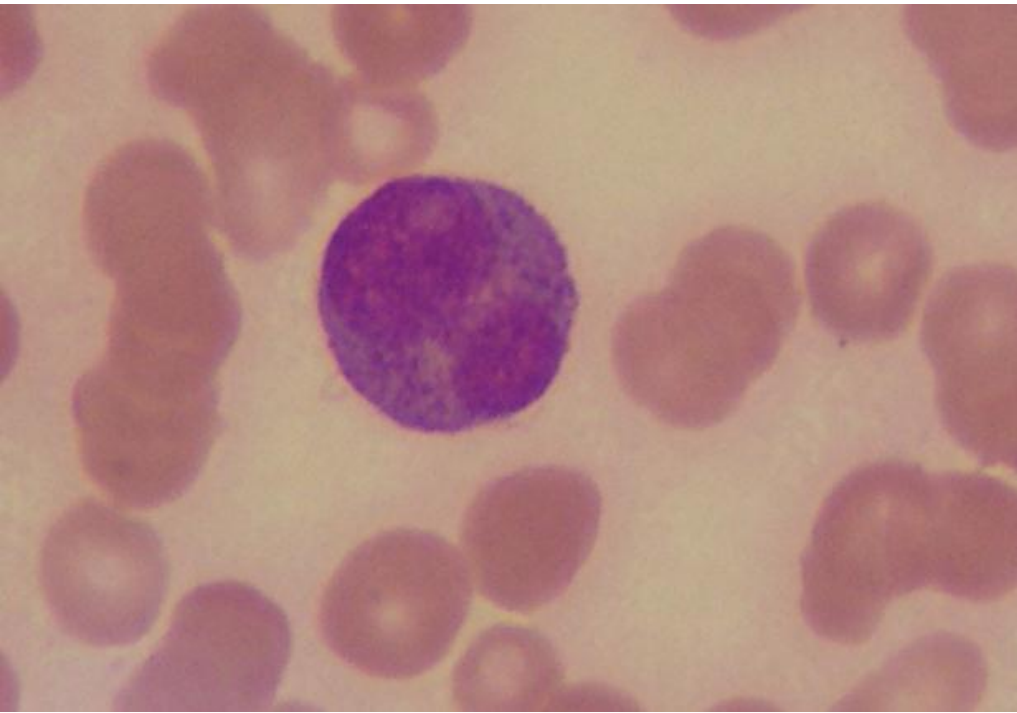
SAO = Southeast Asian Ovalocytosis, HPP = Hereditary pyropoikilocytosis

19. ผู้ป่วยหญิง 35 ปี มาด้วยไข้ 3 วัน CBC มี leukopenia
ตรวจไขกระดูกเป็นดังภาพ จงให้การวินิจฉัย

- A. Agranulocytosis
- B. Large cell lymphoma
- C. Acute promyelocytic leukemia
- D. Malignant histiocytosis
- E. Acute monoblastic leukemia



Acute promyelocytic leukemia



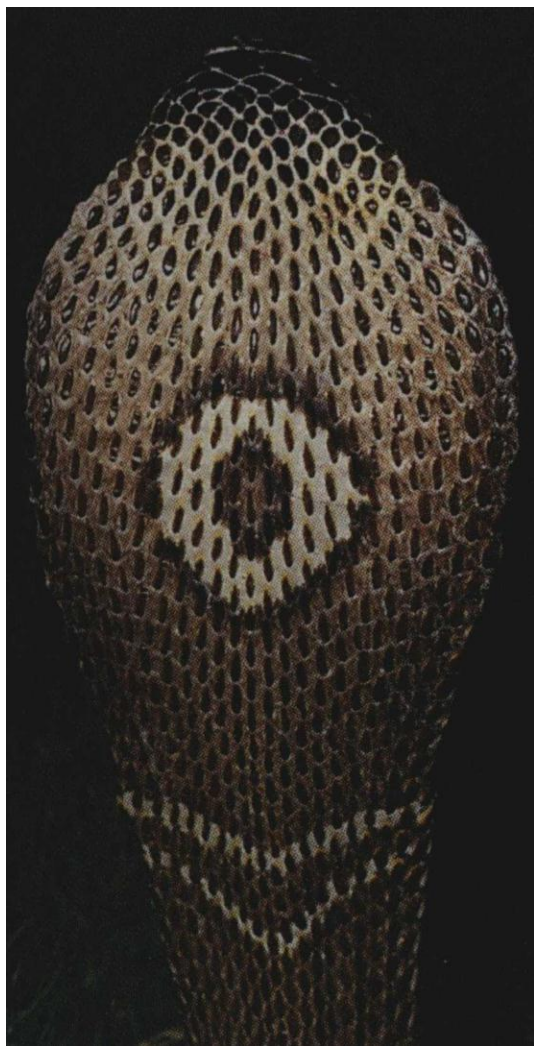
20. What is the most likely complication of this snake?



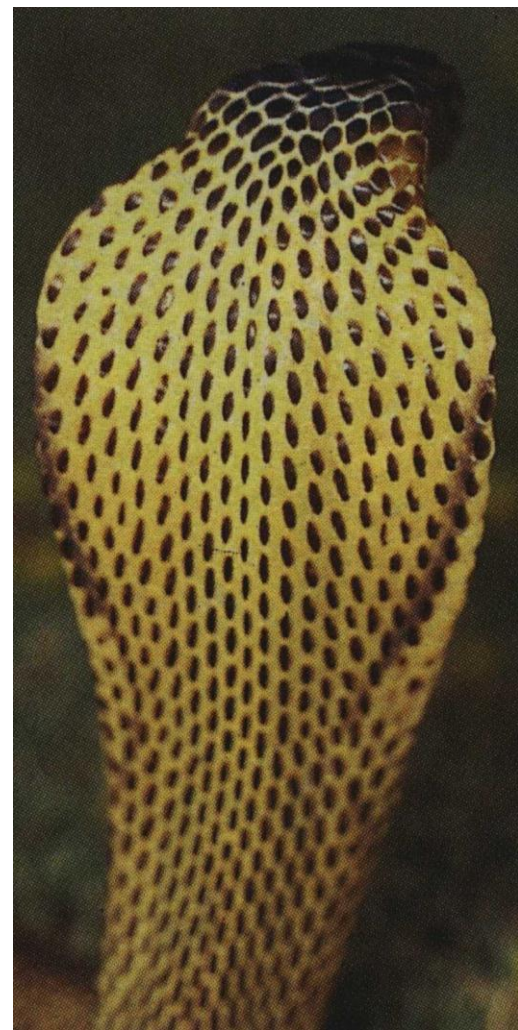
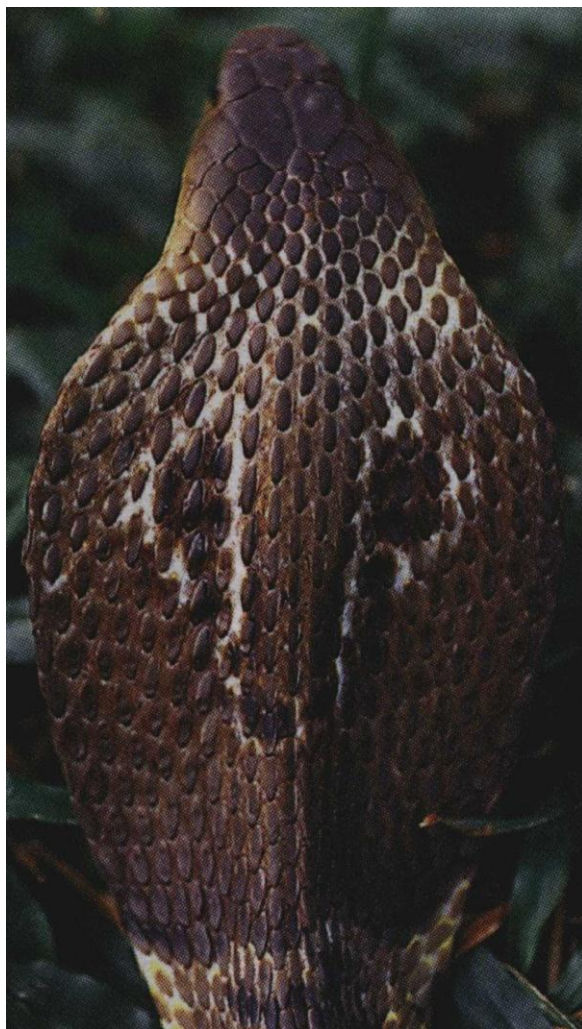
- A. DIC**
- B. Renal failure**
- C. Compartment syndrome**
- D. Respiratory failure**
- E. Liver failure**



งูเห่าไม้พ่นพิษ



งูเห่าพ่นพิษ



งูเห่า



งูจงอาง



Occipital
scale

ลาย

งูเขียวหางไหม้ Local effects I



Edema

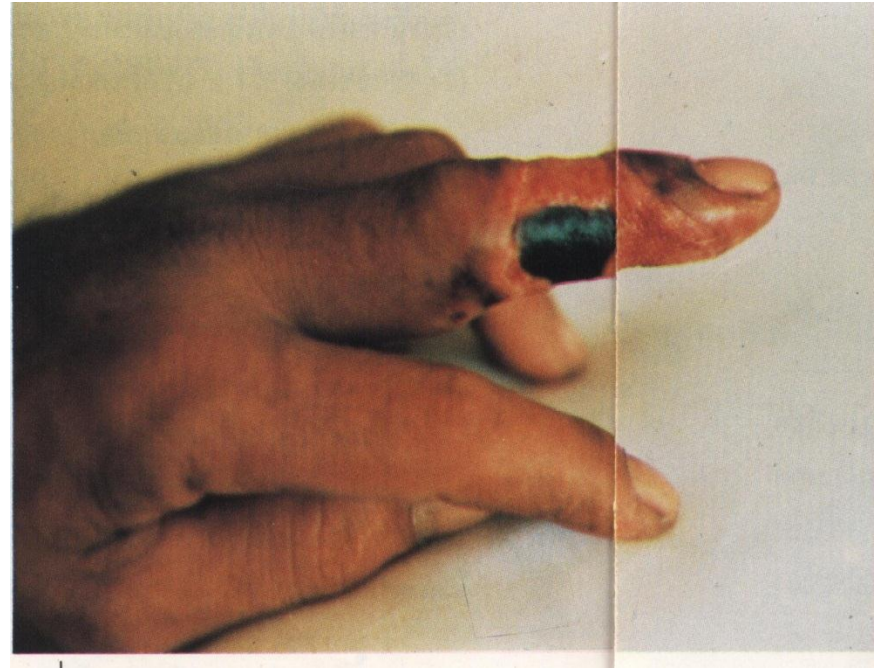


Ecchymosis

งูเขียวหางไหม้ Local effects II



Blister

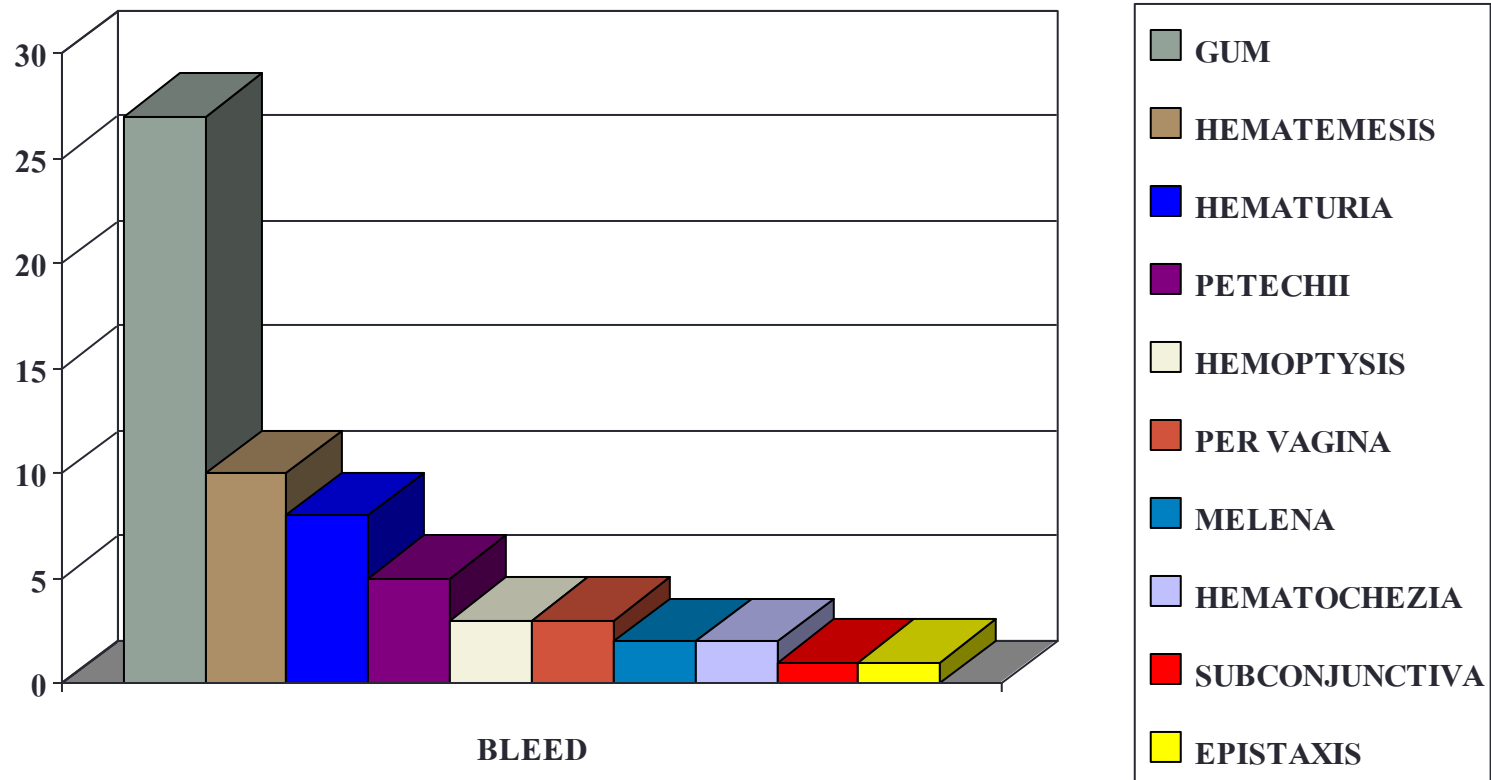


Necrosis

ឡកະປະ severe local effects



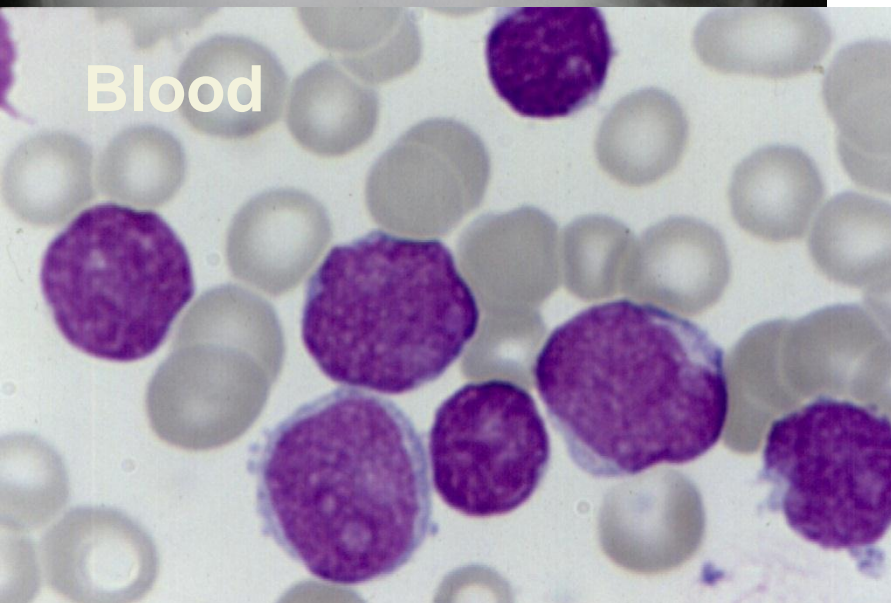
Systemic Bleeding



Multiple site 54%

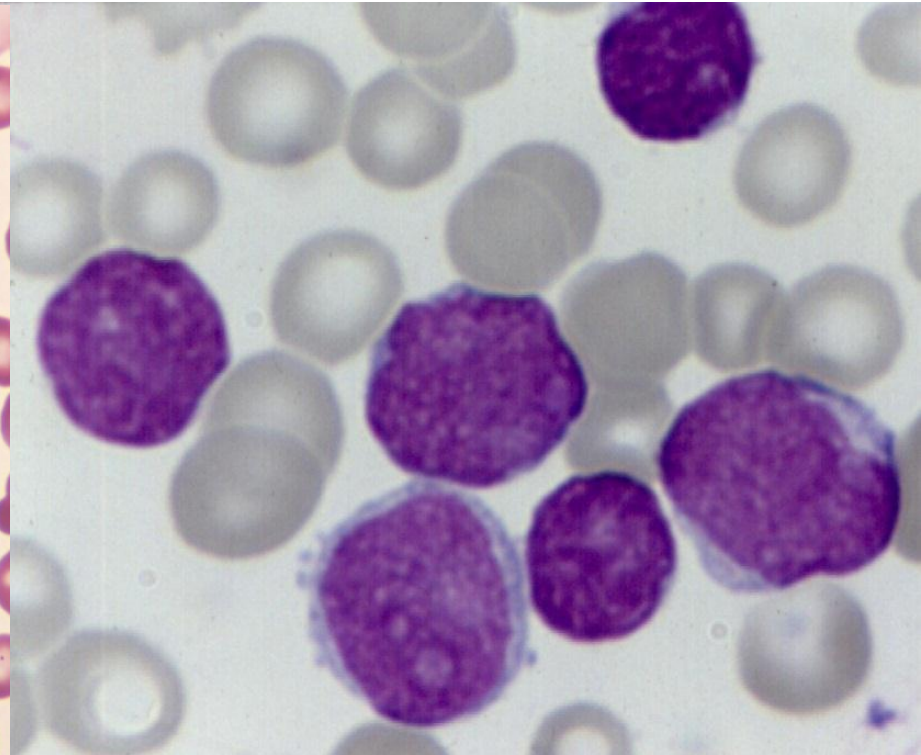
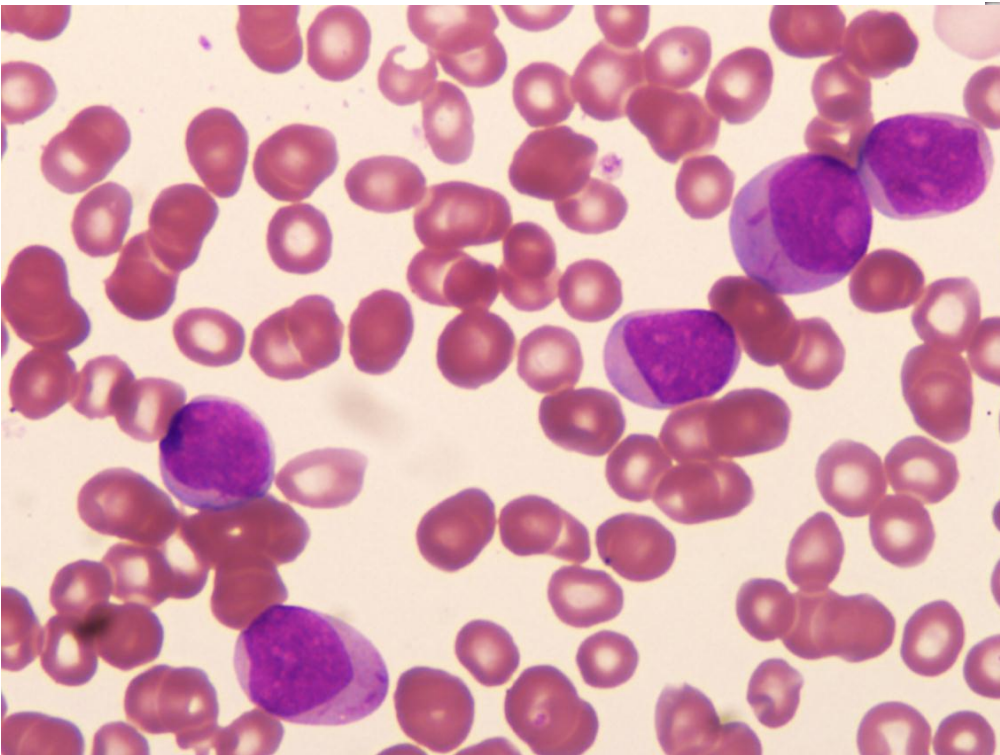


21. 25-yr-old man
with anemia, fever
and bleeding

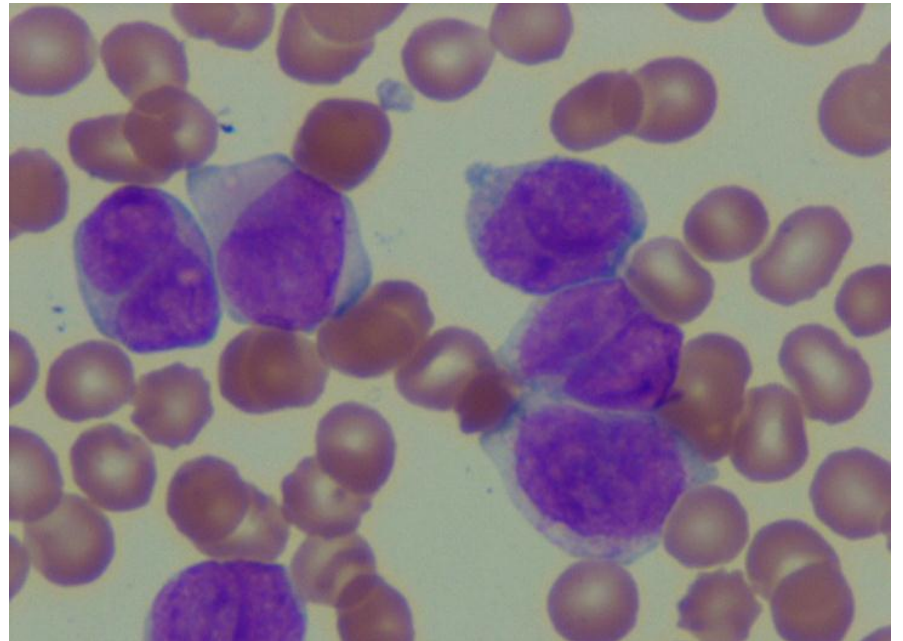
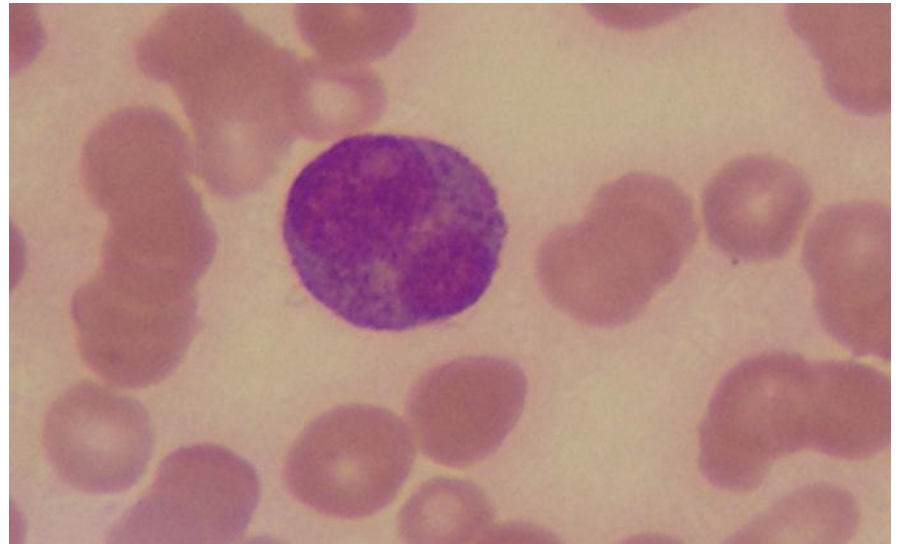
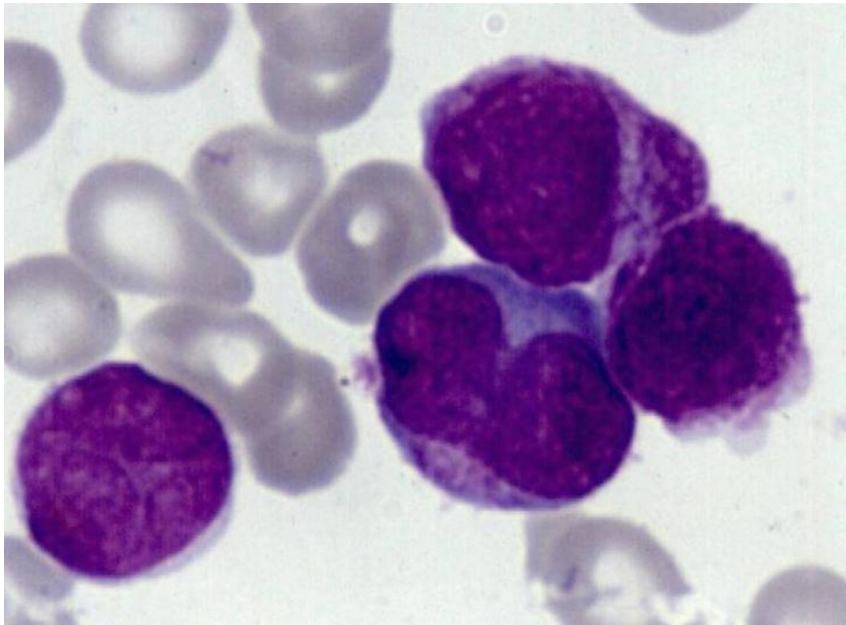


1. T-ALL
2. B-ALL
3. AML M7
4. Lymphoblastic
lymphoma
5. Hodgkin lymphoma

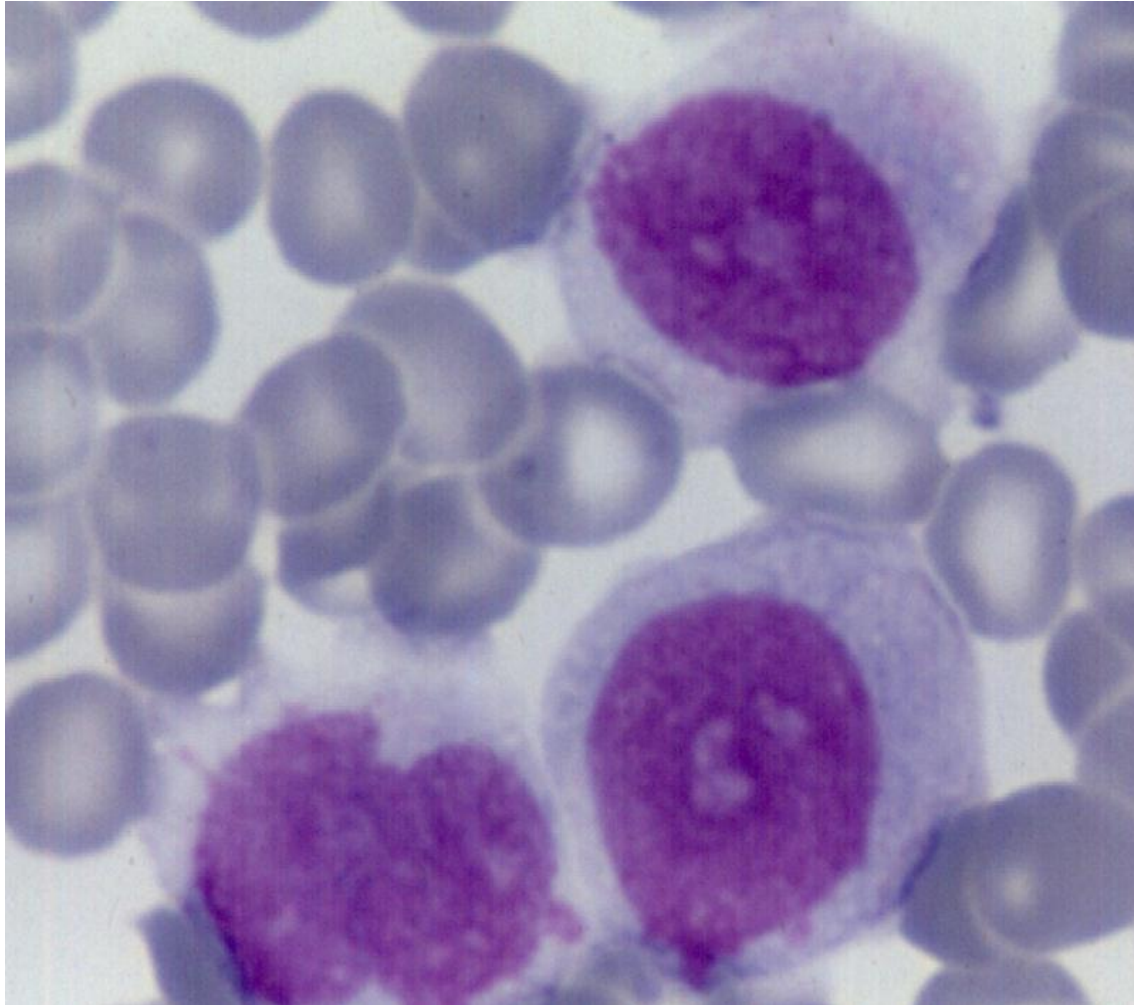
AML vs ALL



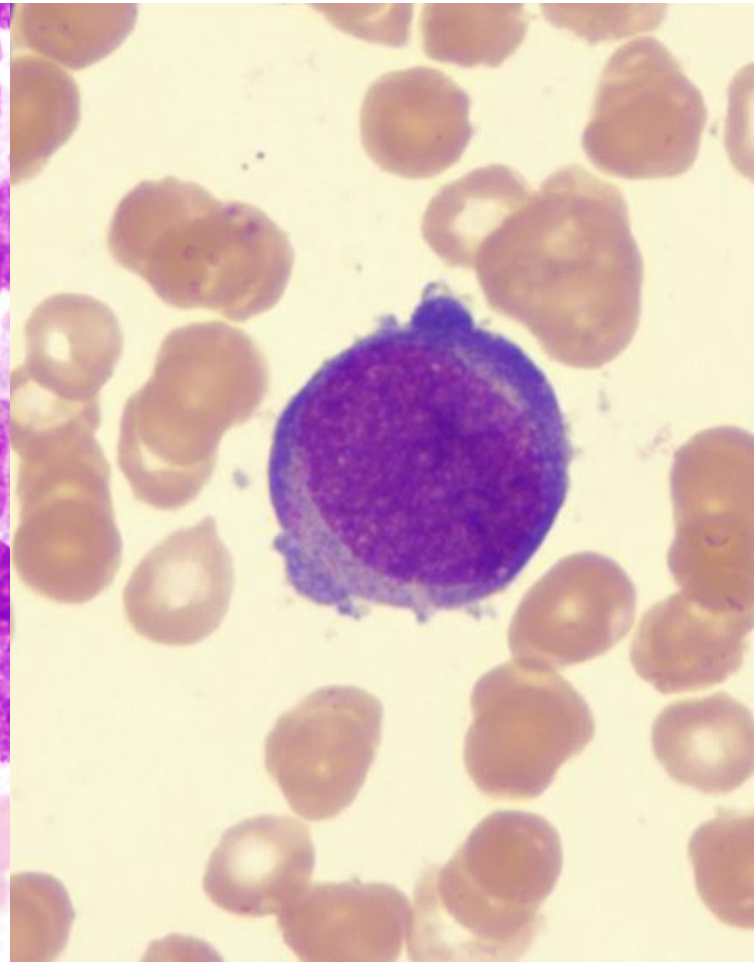
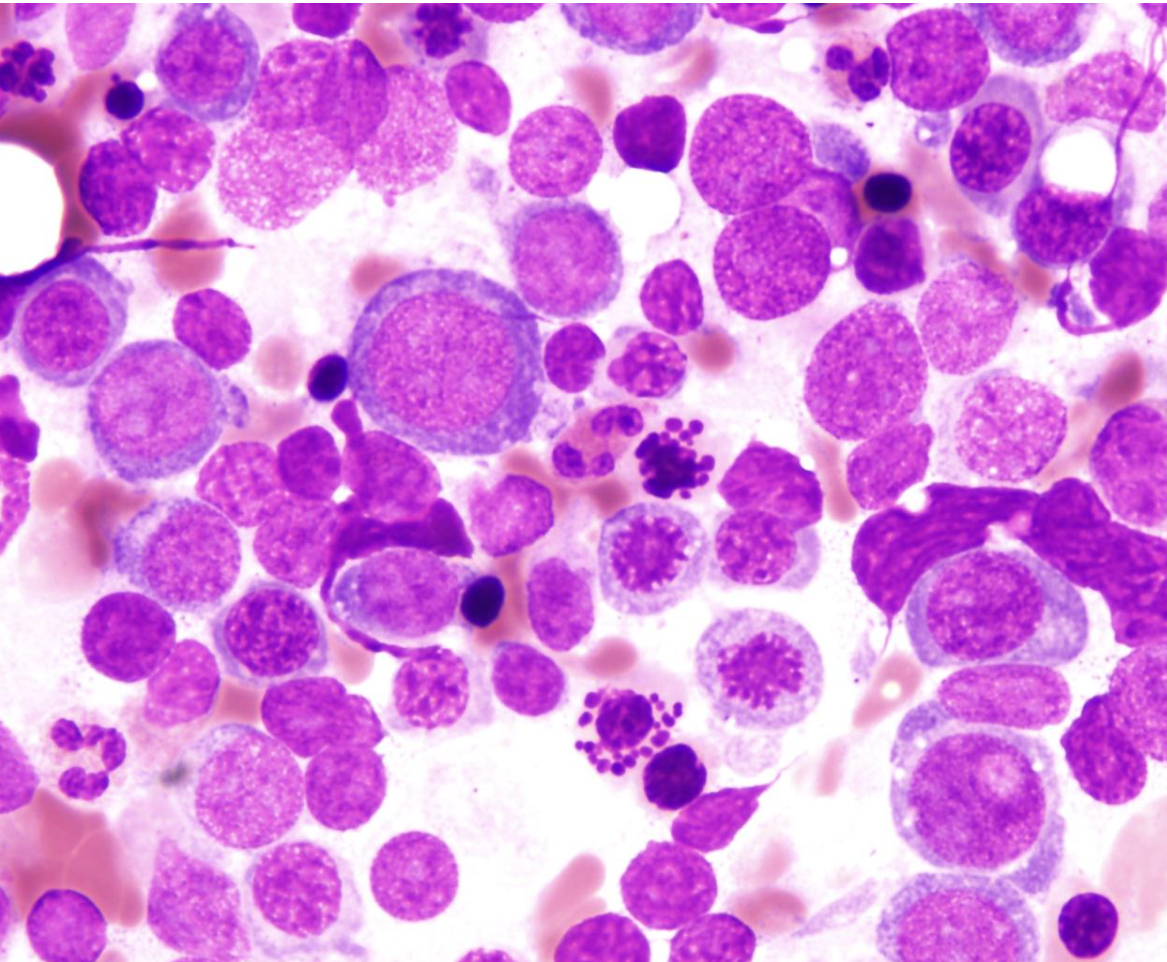
APL (AML-M3)



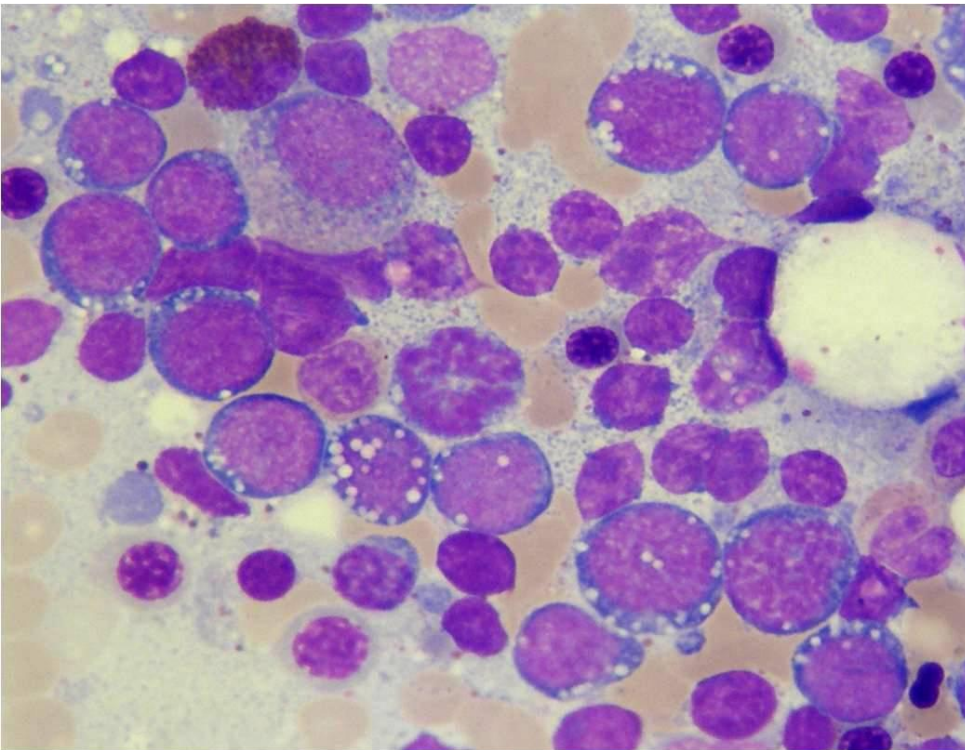
AML M5



AML M6 and AML M7

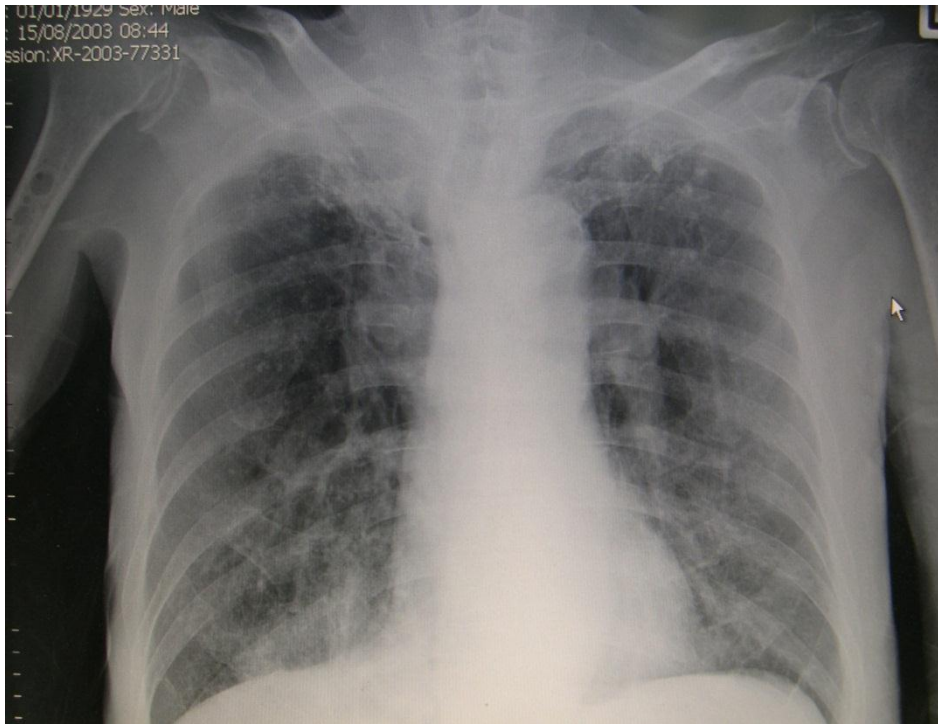


22. A 20-yr-old with fever and huge abdominal mass



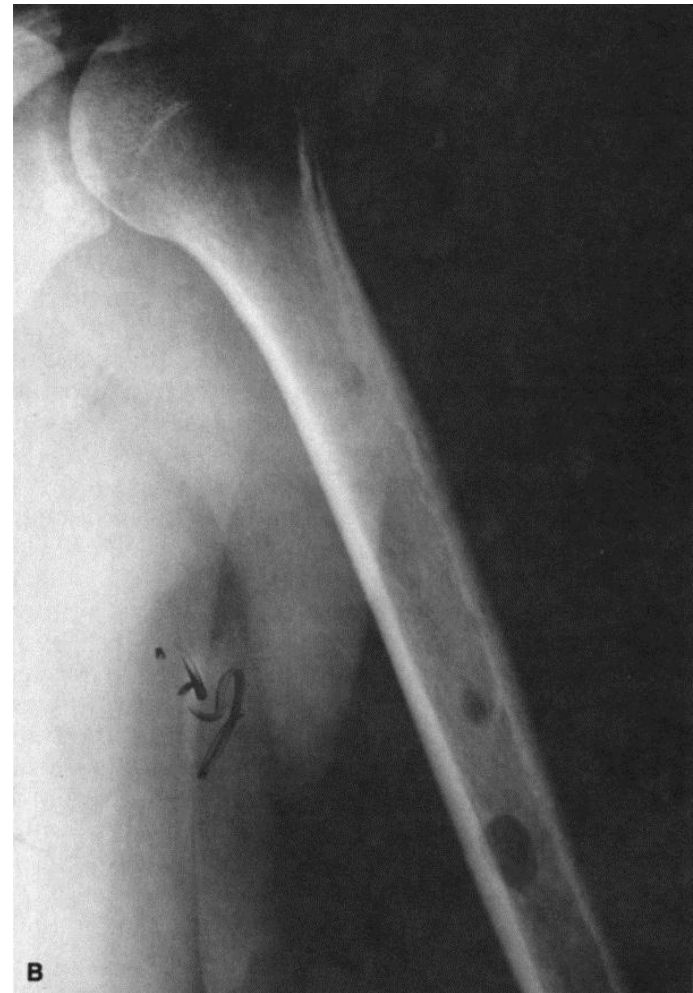
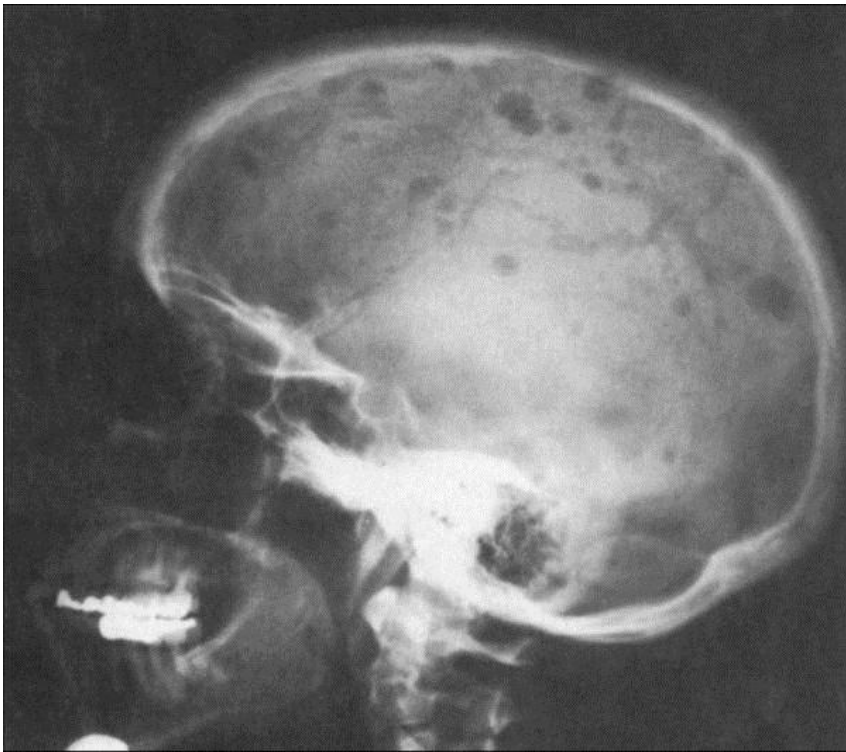
- A. **Burkitt's lymphoma**
- B. **Diffuse large cell lymphoma**
- C. **Lymphoblastic lymphoma**
- D. **Angioimmunoblastic lymphoma**
- E. **Metastatic adenocarcinoma**

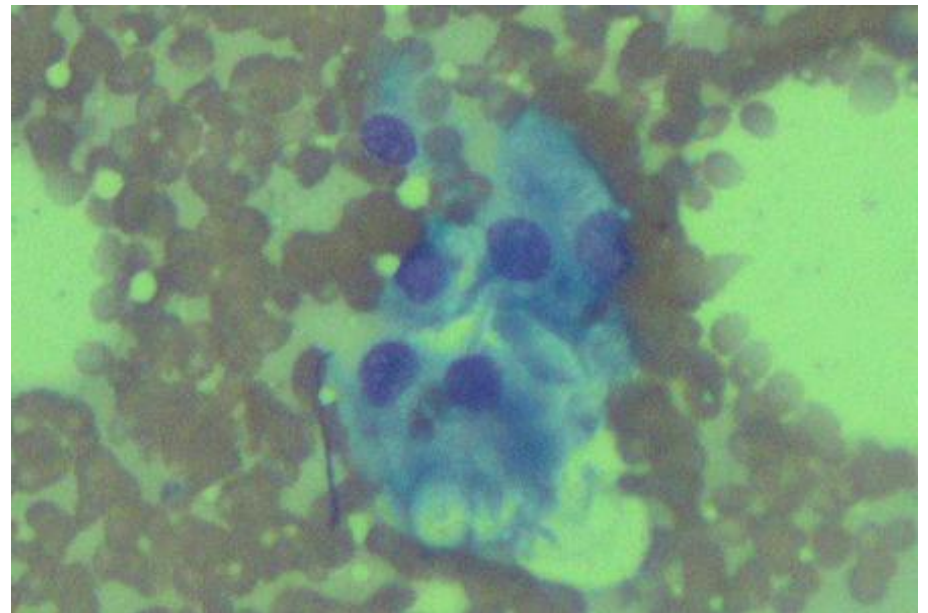
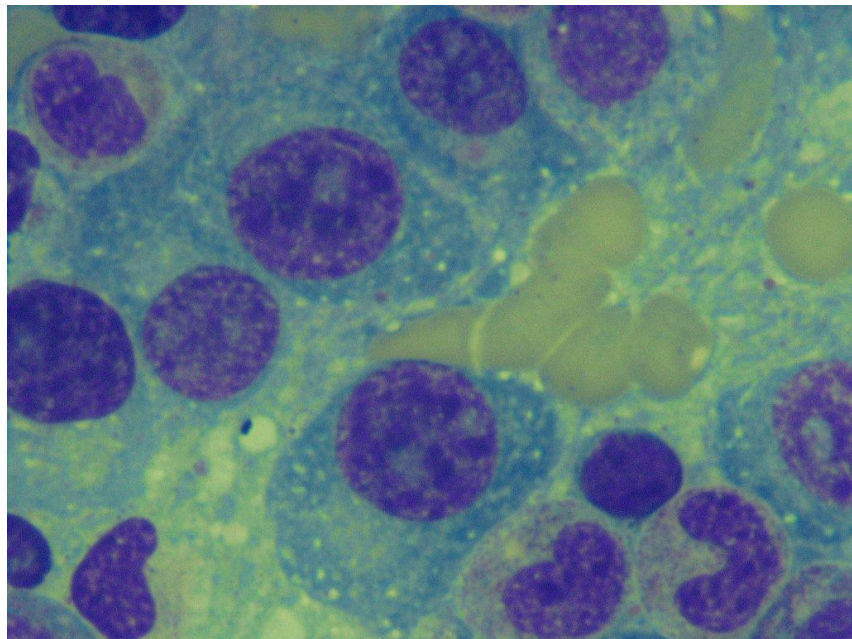
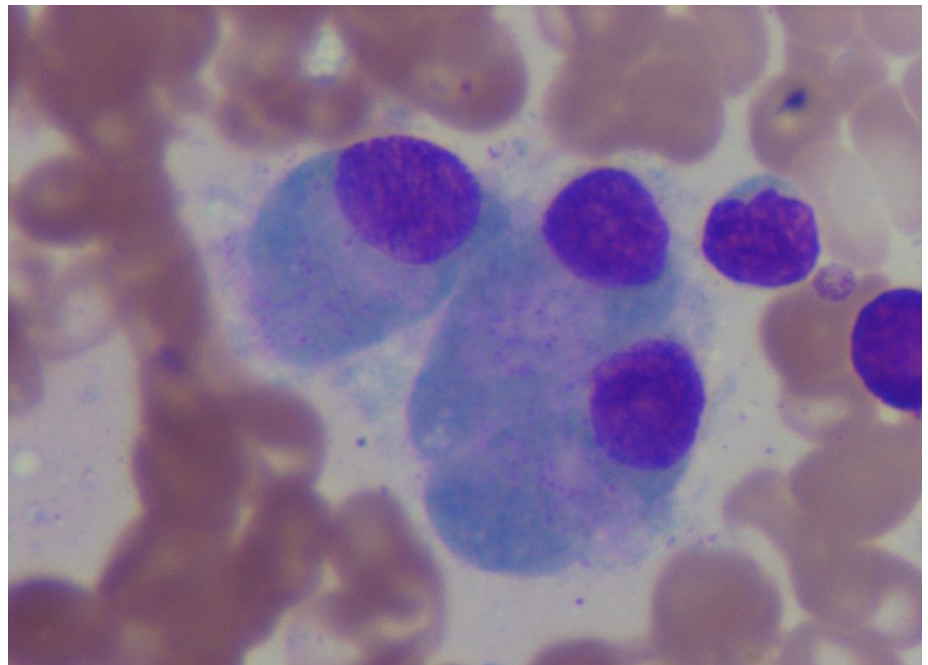
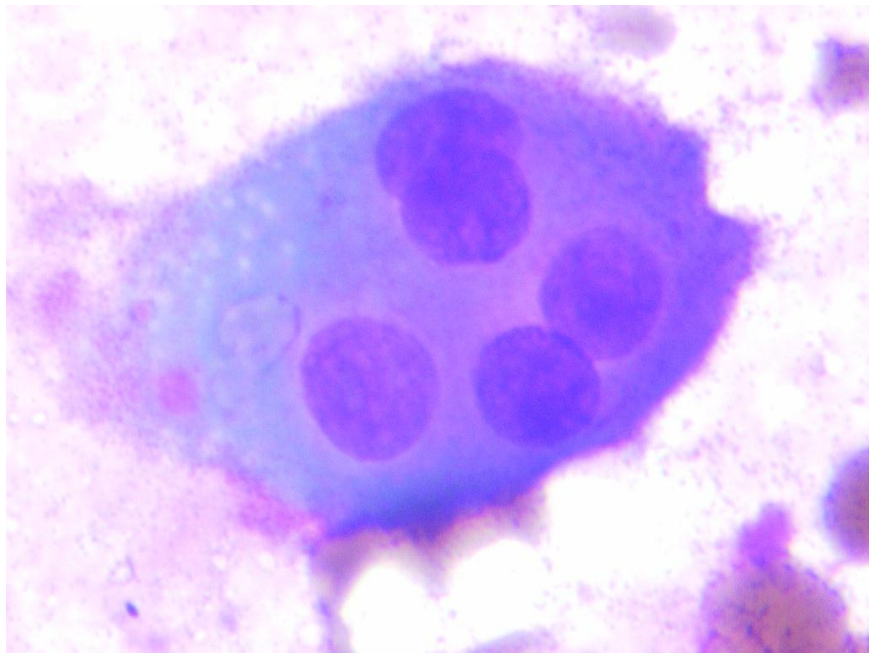
23. A 60-y-man with anemia



- A. Anemia of chronic disorders**
- B. CA prostate with bone metastasis**
- C. Multiple myeloma**
- D. Disseminated TB**
- E. Pure red cell aplasia**

Bone lesions in multiple myeloma





24. A 65-y-female with weakness



A. Osteopetrosis
C. Bone metastasis
E. hyperparathyroidism

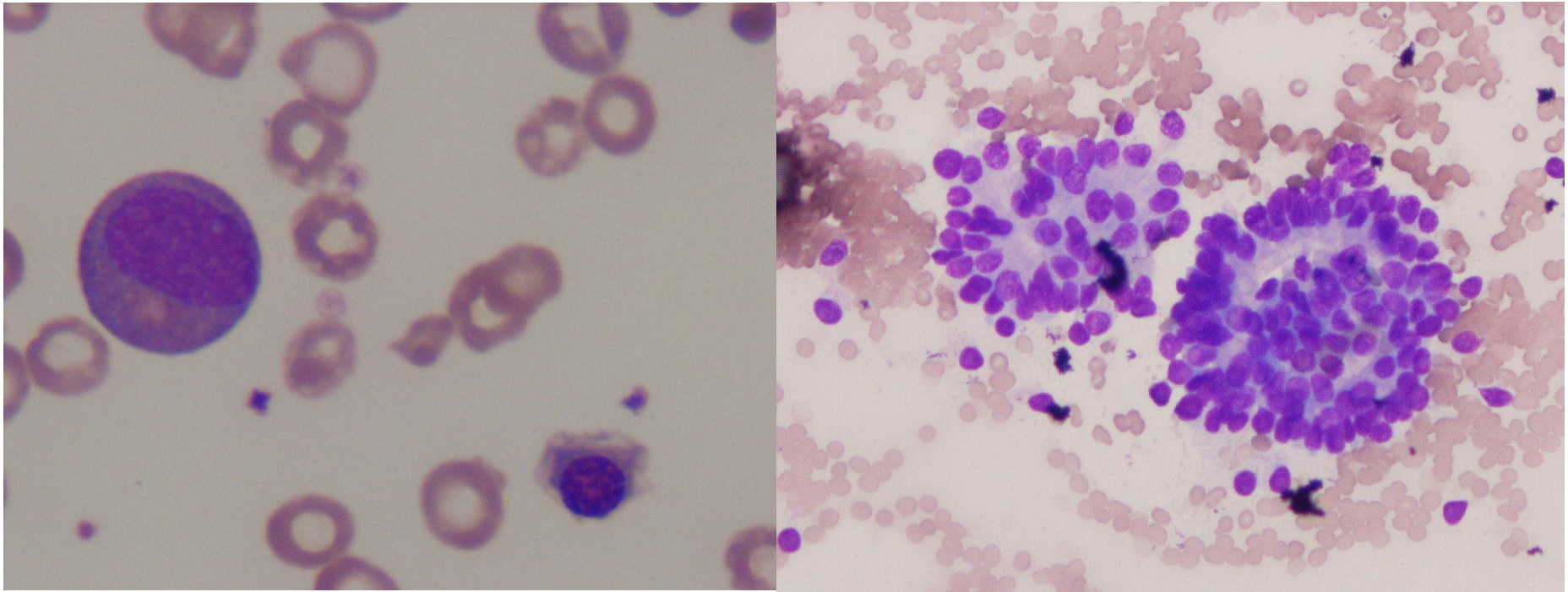
B. MM
D. POEMS syndrome

POEMS syndrome

TABLE I. Criteria for the Diagnosis of POEMS Syndrome^a

Mandatory major criteria	1. Polyneuropathy (typically demyelinating)
	2. Monoclonal plasma cell-proliferative disorder (almost always λ)
Other major criteria (one required)	3. Castleman disease ^a
	4. Sclerotic bone lesions
	5. Vascular endothelial growth factor elevation
Minor criteria	6. Organomegaly (splenomegaly, hepatomegaly, or lymphadenopathy)
	7. Extravascular volume overload (edema, pleural effusion, or ascites)
	8. Endocrinopathy (adrenal, thyroid, ^b pituitary, gonadal, parathyroid, pancreatic ^b)
	9. Skin changes (hyperpigmentation, hypertrichosis, glomeruloid hemangiomas, plethora, acrocyanosis, flushing, white nails)
	10. Papilledema
	11. Thrombocytosis / polycythemia ^c
Other symptoms and signs	Clubbing, weight loss, hyperhidrosis, pulmonary hypertension/restrictive lung disease, thrombotic diatheses, diarrhea, low vitamin B ₁₂ values

25. A 65-yr-old man with back pain, anemia, and polyurea. CBC: pancytopenia, serum Calcium 14 g/dL, albumin 3 g/dL, globulin 5 g/dL



- A. Multiple myeloma**
- B. Hodgkin lymphoma**
- C. Metastatic carcinoma**
- D. Sarcoidosis**
- E. Anaplastic large cell lymphoma**

26) ผู้ป่วยชายอายุ 50 ปี มี hematoma ที่แผ่นหลังมา 2 สัปดาห์ ไม่มีประวัติอุบัติเหตุ ตรวจ lab พบ Platelet $330 \times 10^9/L$, APTT 75 sec (25-35), PT 12.0 sec (11-14)

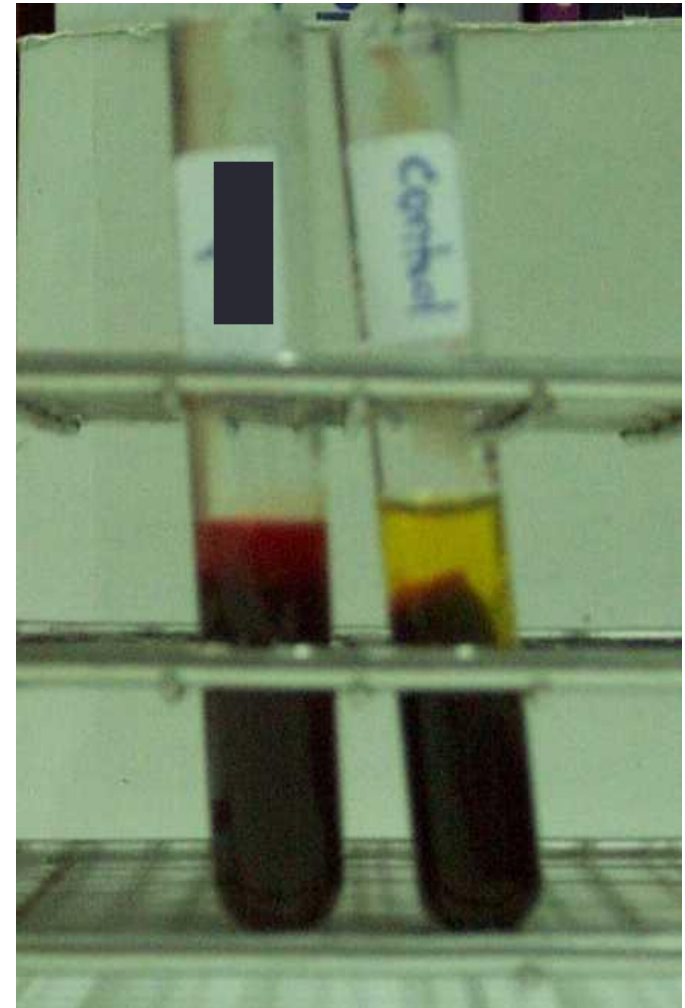


1. Vitamin K deficiency
2. DIC
3. Factor VIII inhibitor
4. Lupus anticoagulant
5. Liver disease

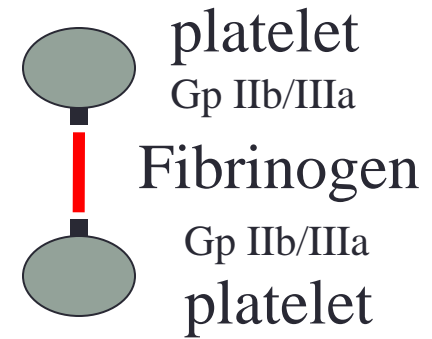
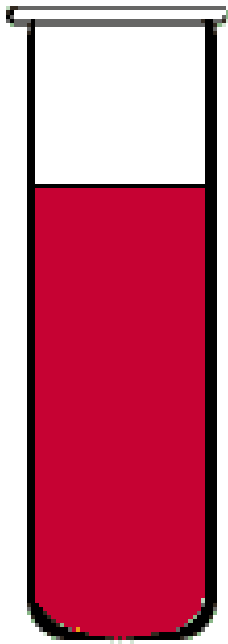
27) ผู้ป่วยชายอายุ 19 มีอาการเลือดกำเดาออก และ เลือดออกไรฟันเป็นๆหายๆ มาแต่เด็ก
Hb 10.2 g/dL, MCV 75 fL, RDW 18%,
WBC $7.0 \times 10^9/L$, PMN 70%, L 25%, M 5%,
Platelet $350 \times 10^9/L$ Bleeding time > 15 min

- A. Hermansky Pudlak syndrome
- B. Glanzmann thrombasthenia
- C. Bernard Soulier syndrome
- D. Von Willebrand disease
- E. Storage pool disease

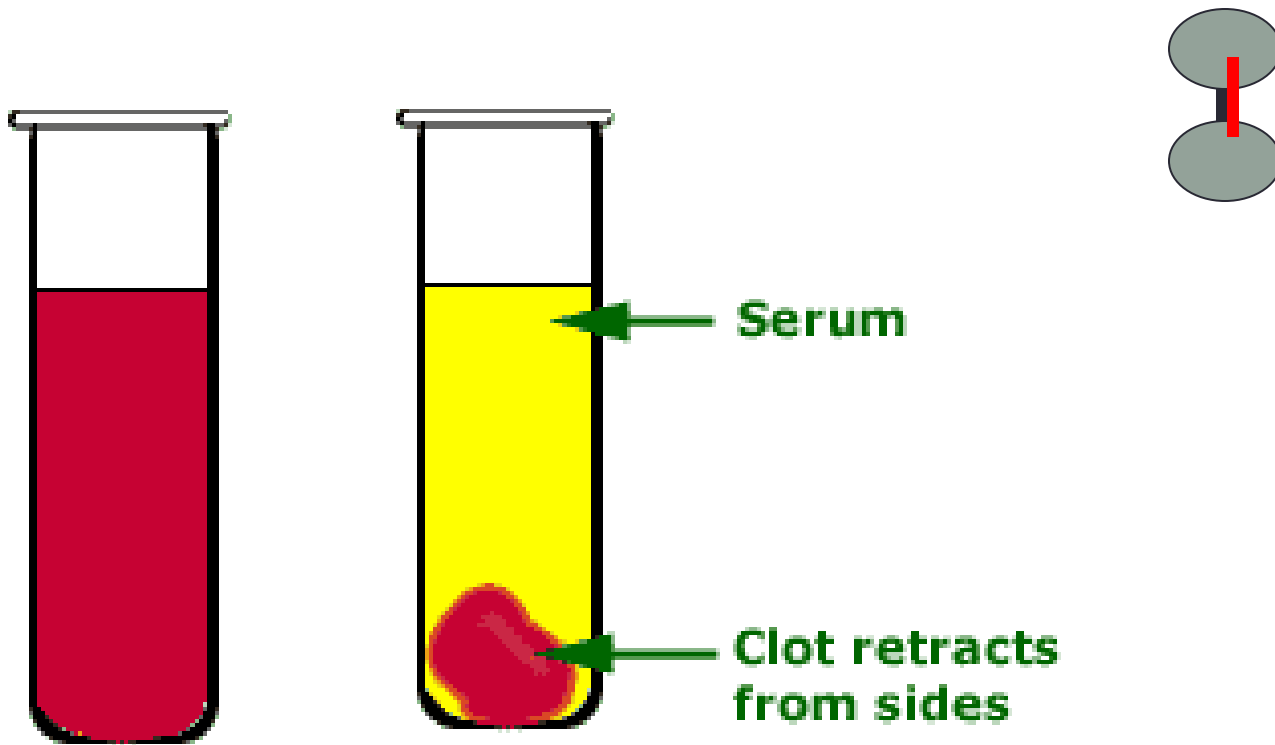
2 hours after
Venous Clotting Time



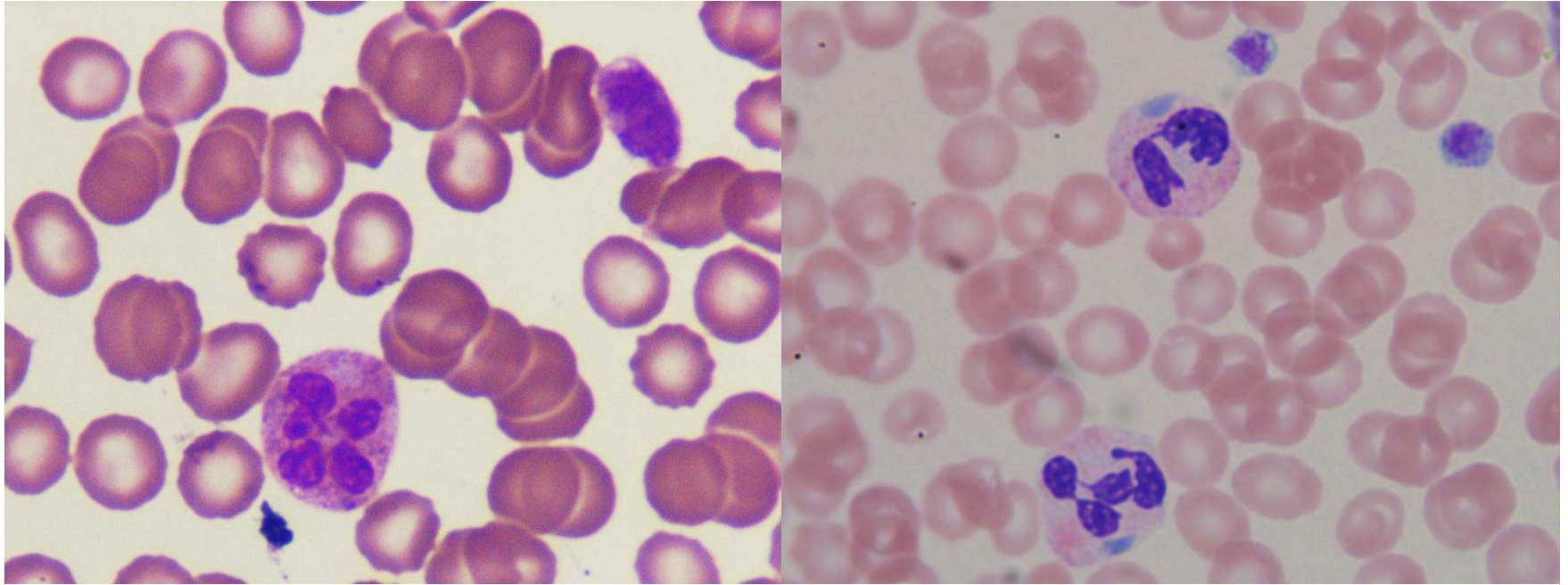
Clot Retraction



Clot Retraction



28. A 35-yr-old female with thrombocytopenia and no clinical bleeding



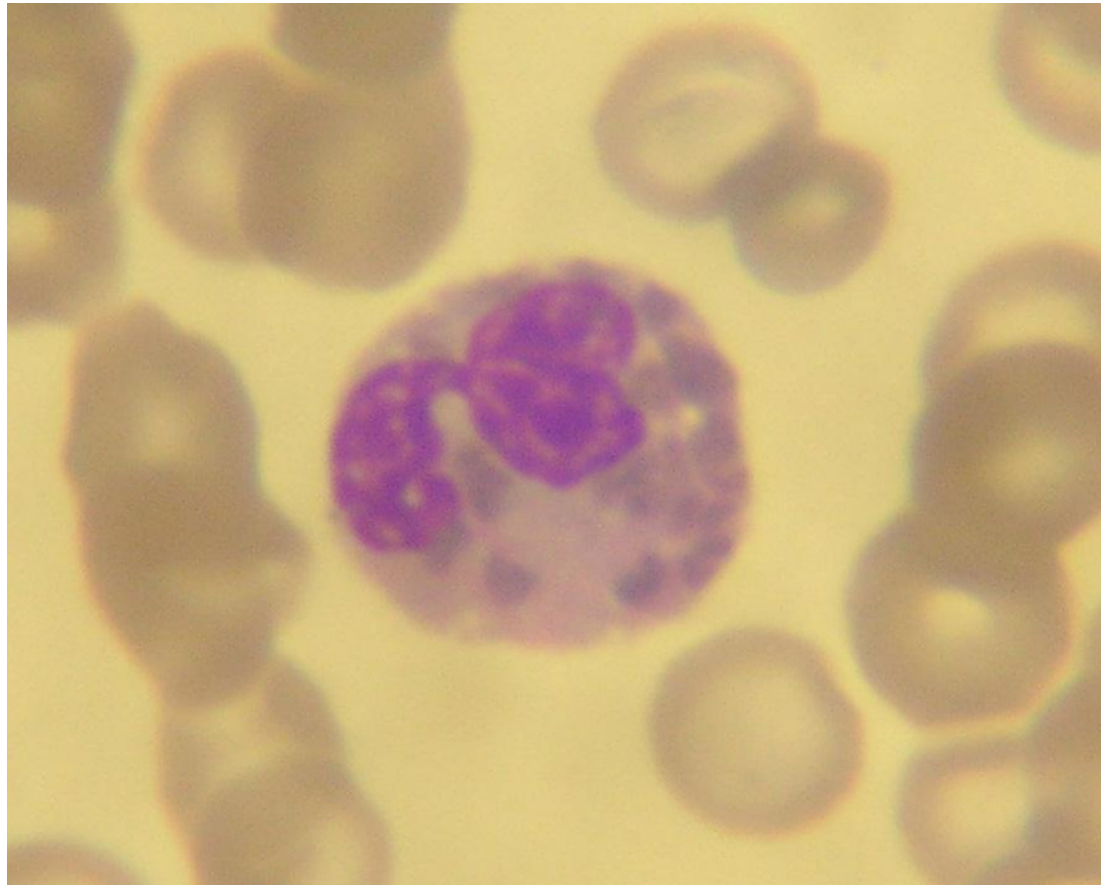
A. Bernard Soulier syndrome
C. Chediak Higashi syndrome
E. Hermansky Pudlak syndrome

B. May Hegglin anomaly
D. McLeod syndrome

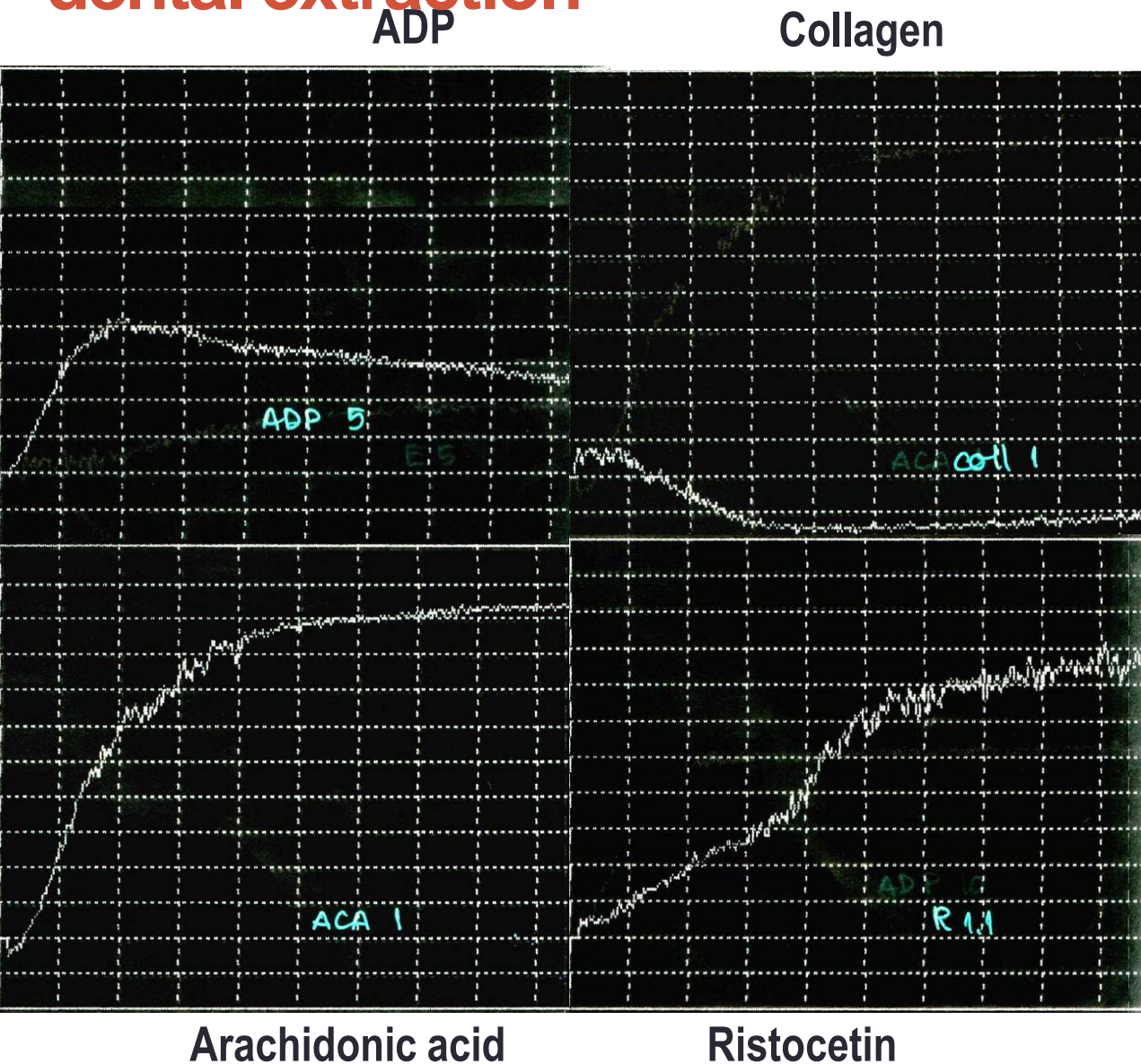
***MYH9*-related thrombocytopenia or *MYH9*-related hereditary macrothrombocytopenia**

- Triad: thrombocytopenia, large platelets and leukocyte inclusions (Döhle-like bodies)
- Mutation of nonmuscle myosin heavy chain 9 (*MYH9*)
- May-Hegglin anomaly (MHA), Sebastian (SBS) syndrome, Fechtner (FTNS) syndrome and Epstein (EPS) syndrome
- No leukocyte inclusions in EPS
- MHA: bright blue spindle-shaped inclusions
- SBS and FTNS: faint blue irregular-shaped inclusions
- Alport-like clinical features (sensorineural deafness and cataracts) in FTNS

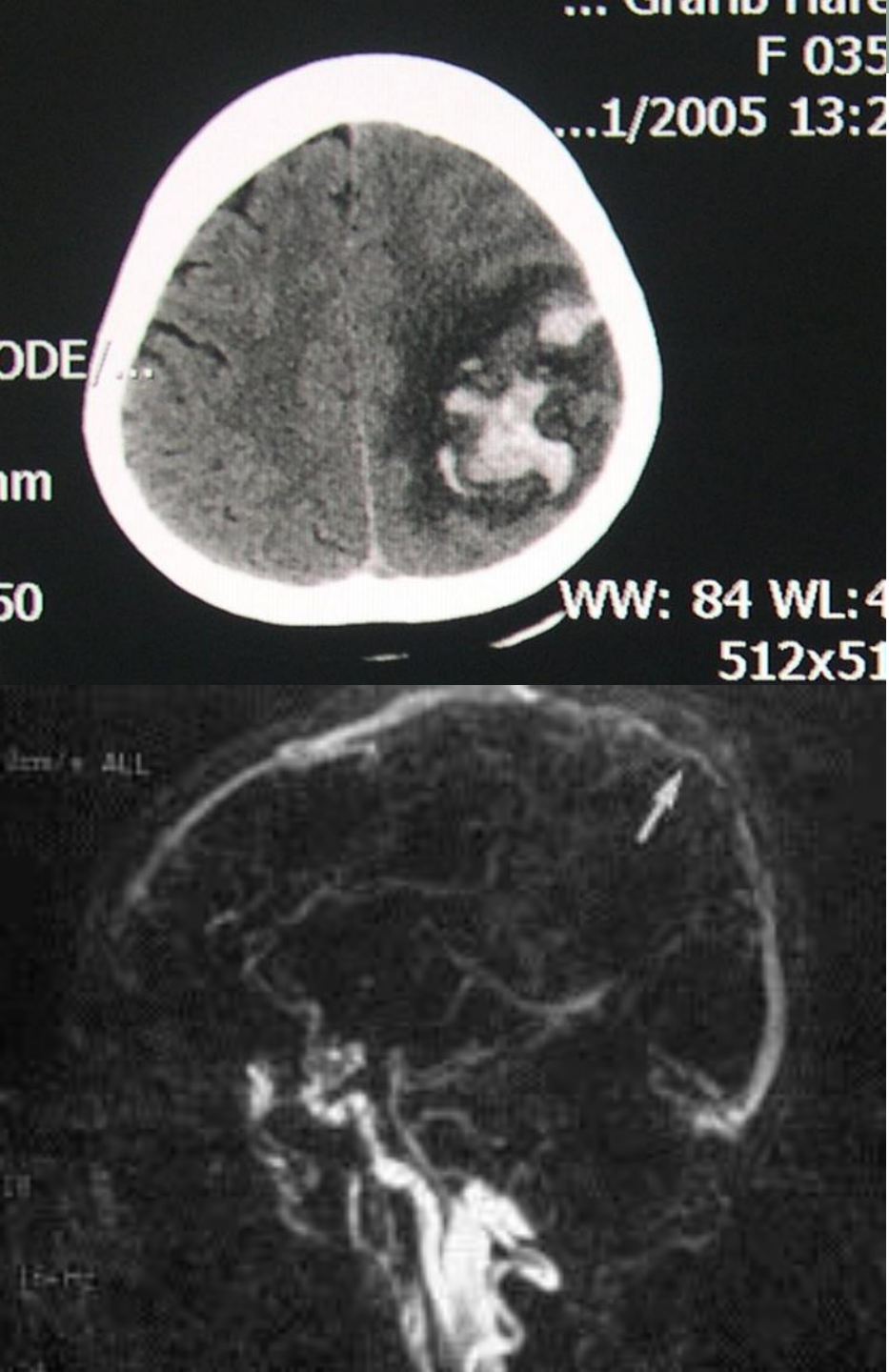
Chediak Higashi syndrome



29. A 20-yr-old woman had excessive bleeding after dental extraction



- A. ASA use
- B. Glanzmann thrombasthenia
- C. Bernard Soulier syndrome
- D. Von Willebrand disease
- E. Storage pool disease



**30. 35-yr-old woman
with severe
headache, seizure**

- 1. Heparin**
- 2. Surgery**
- 3. Brain radiation**
- 4. Factor VIIa**
- 5. Conservative treatment**

MRV