بسم الله الرحمن الرحيم

Name : khatoon Yousif khorya
sex : female
Age : 60 years old
occupation : housewife
adress : Mosul

date of admission : 3 / 11 / 2013

Chief complaint :

disturbed consciousness few hours before admission

- **History of present illness :**
- **Known case of idiopathic thrombocytopaenic purpura (ITP) for many years on steroid therapy presented with disturbed consciousness associated with headache and blurred vision , slow speech .**

thenafter admitted to Ibn Sena teaching hospital and patient developed increasing drowsiness and confusion with appearance of multiple red coloured skin lesion on upper limbs and trunk . Few days later patient developed compelet loss of consciousness .

Review of other systems :

Respiratory system: dyspnoea , no cough

G. I.T : no thing of significant

Genitourinary tract : haematuria.

Cardiovasculer and musckeloskeletal systems : no thing of significant

- Past medical history : ITP for about ten years on steroid therapy , DM on insuline treatment
- Past surgical history and drug history : negative

on examination :

unconscious old lady patient , pale , not jaundiced , mild dyspnoea , ecchymoses and bruises on the skin of upper and lower limbs and chest

Neck : No lymphadenopathy

Abdomen: soft , no organomegaly

Chest : clear , ecchymoses

- **BP : 110 / 60 RR : 20 breath /min**
- **Temp. : 37.9 c PR : 88 beat /min**

Investigations

- **Compelete blood count**
- **Hb : 9.8 g/dl (13.5 – 15.0)**
- **RBC : 3.71 $\times 10^{12}$/L (3.8-4.8)**
- **PCV : 30.4 % (37-46)**
- **MCV : 81 fl (83-101)**
- **MCH : 26 pg (27-32)**
- **MCHC :32 g/l (31.5-34.5)**
- **WBC : 16.3 $\times 10^{9}$/L (4-10)**

Differential WBC count:

Neutrophile 80 % , lymphocyte 10 %

Monocyte 6 % , eosinophle 3%

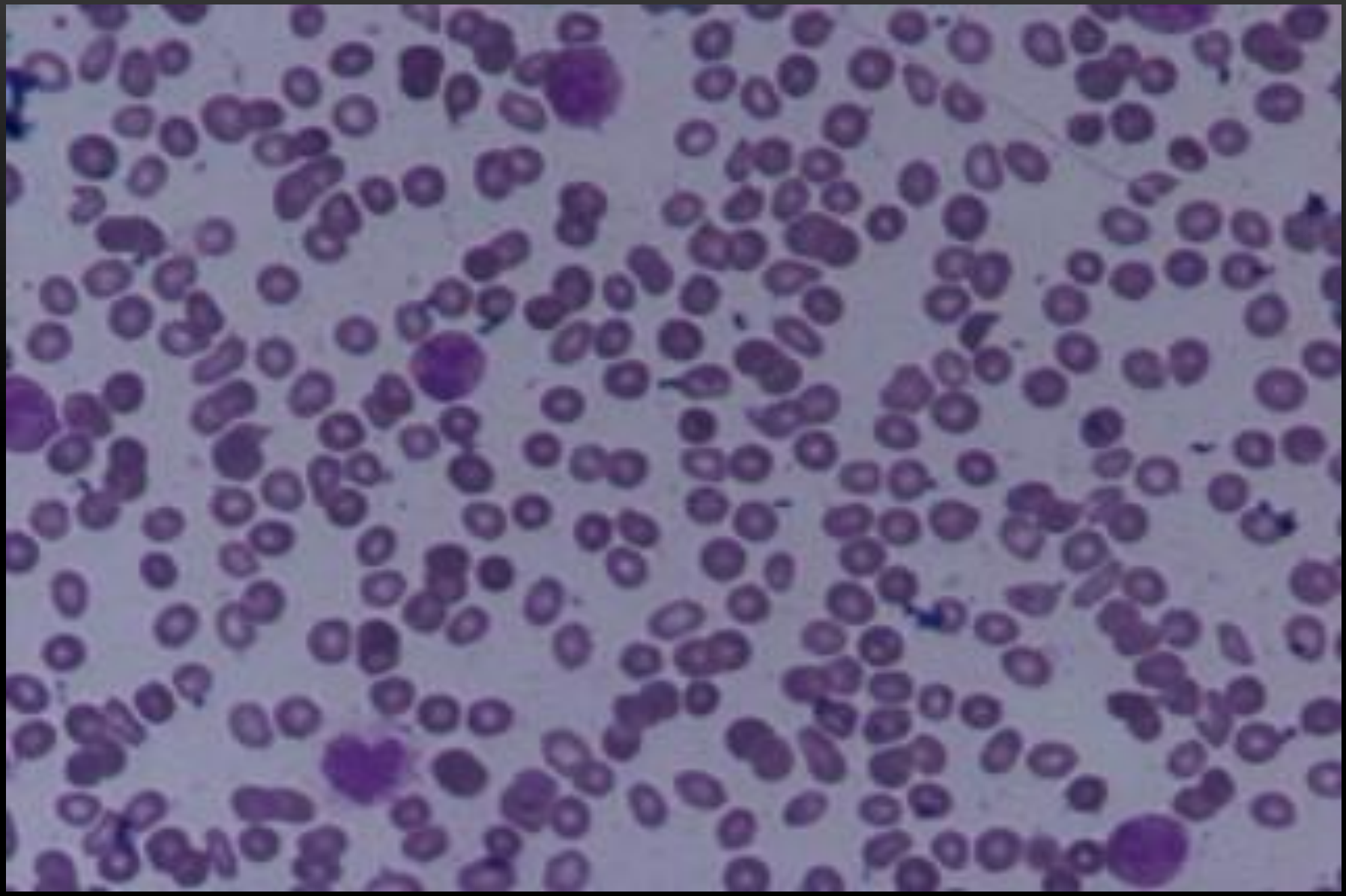
Basophile 1%

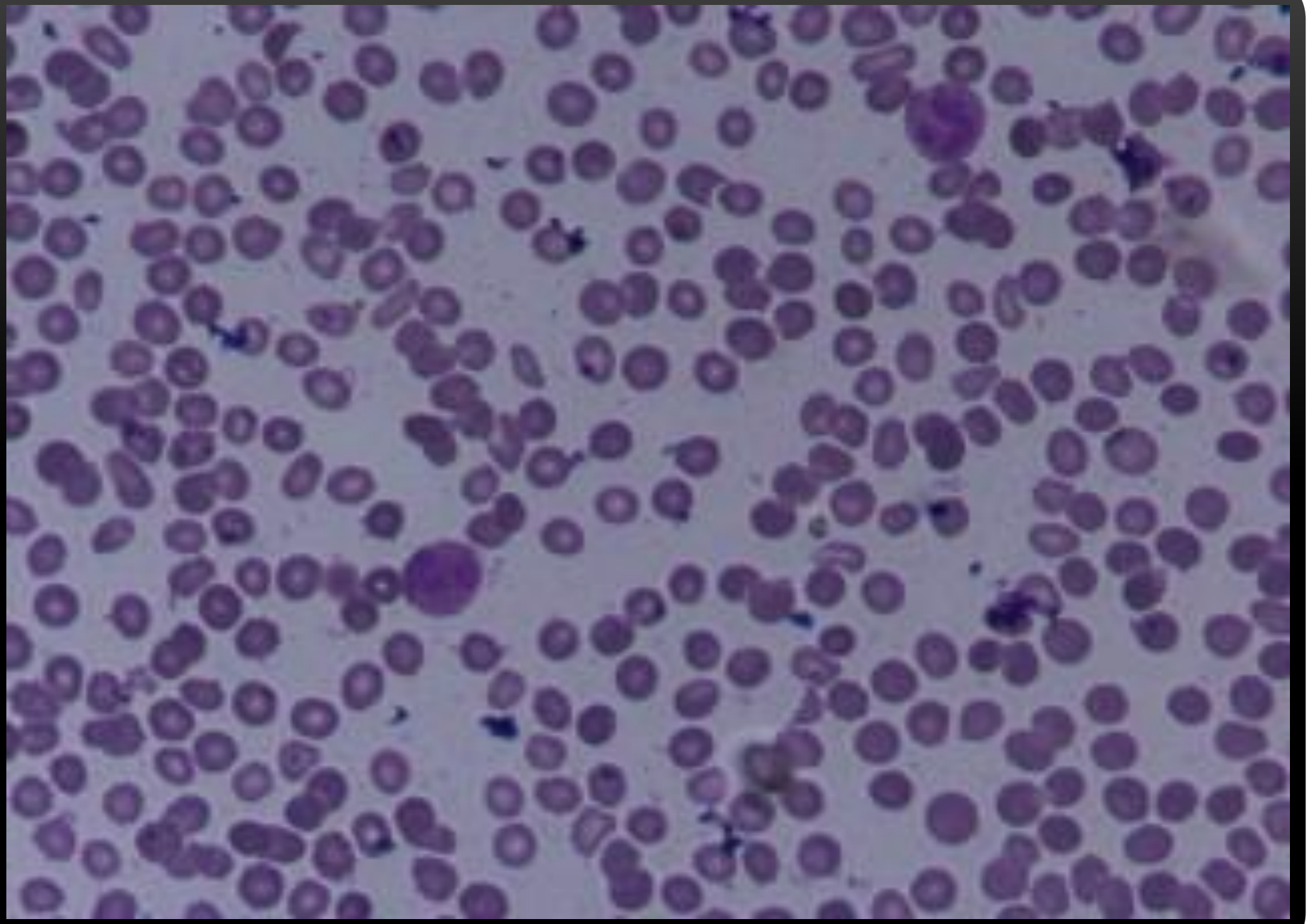
ANC = 13 $\times 10^9$/L

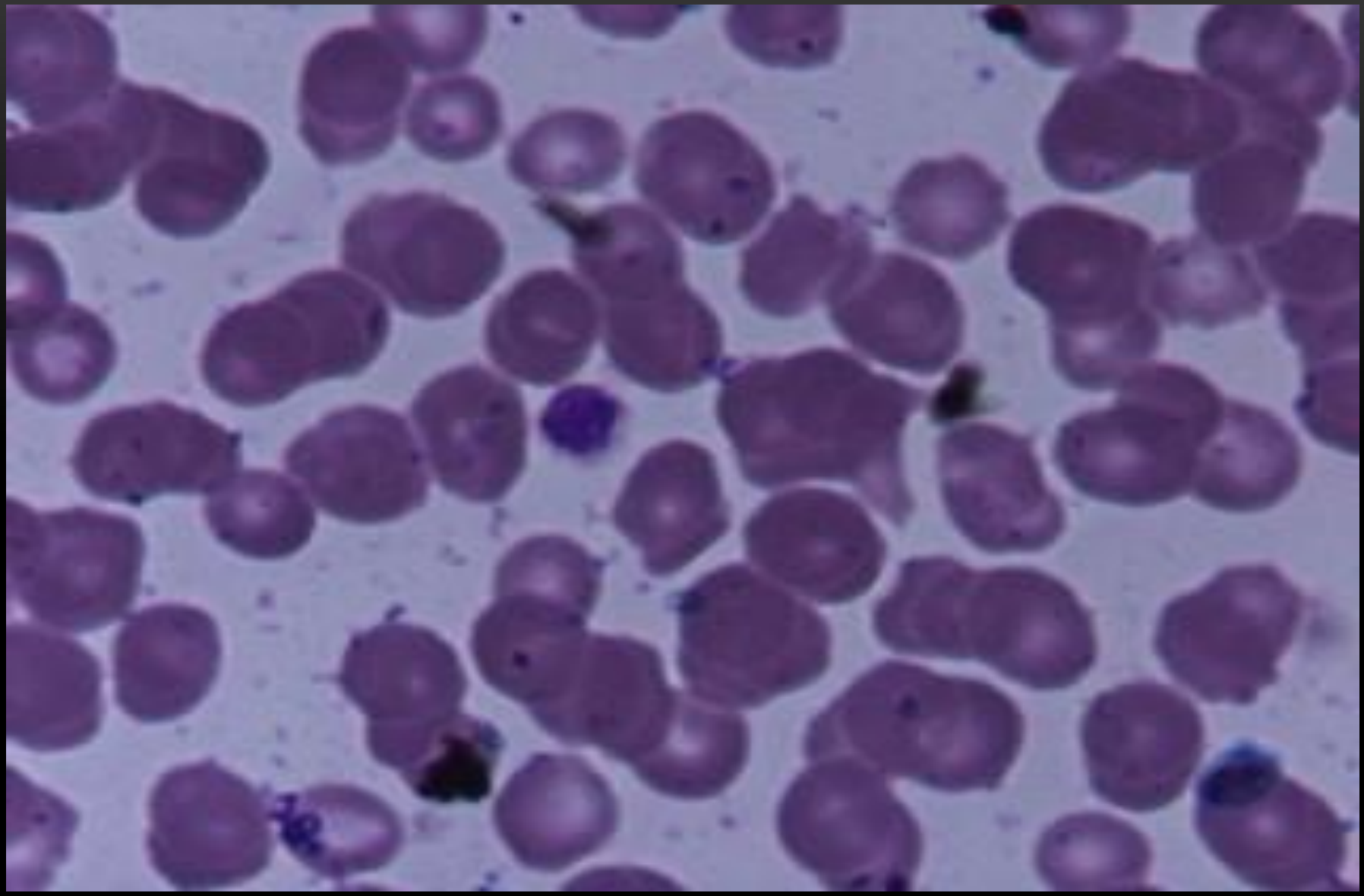
Retic. : 3.5 %

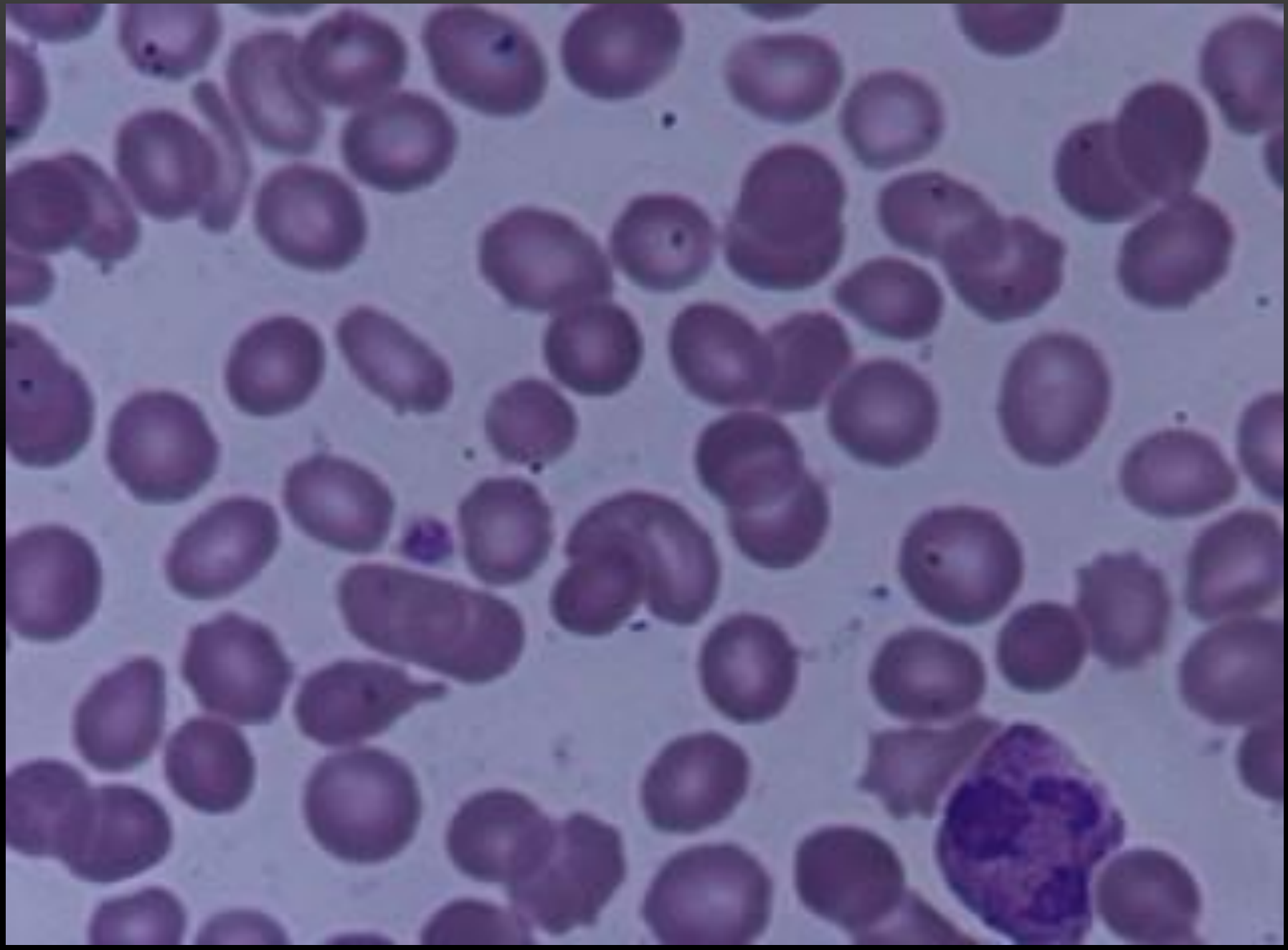
Platelets : 26 $\times 10^9$/L (150-410)

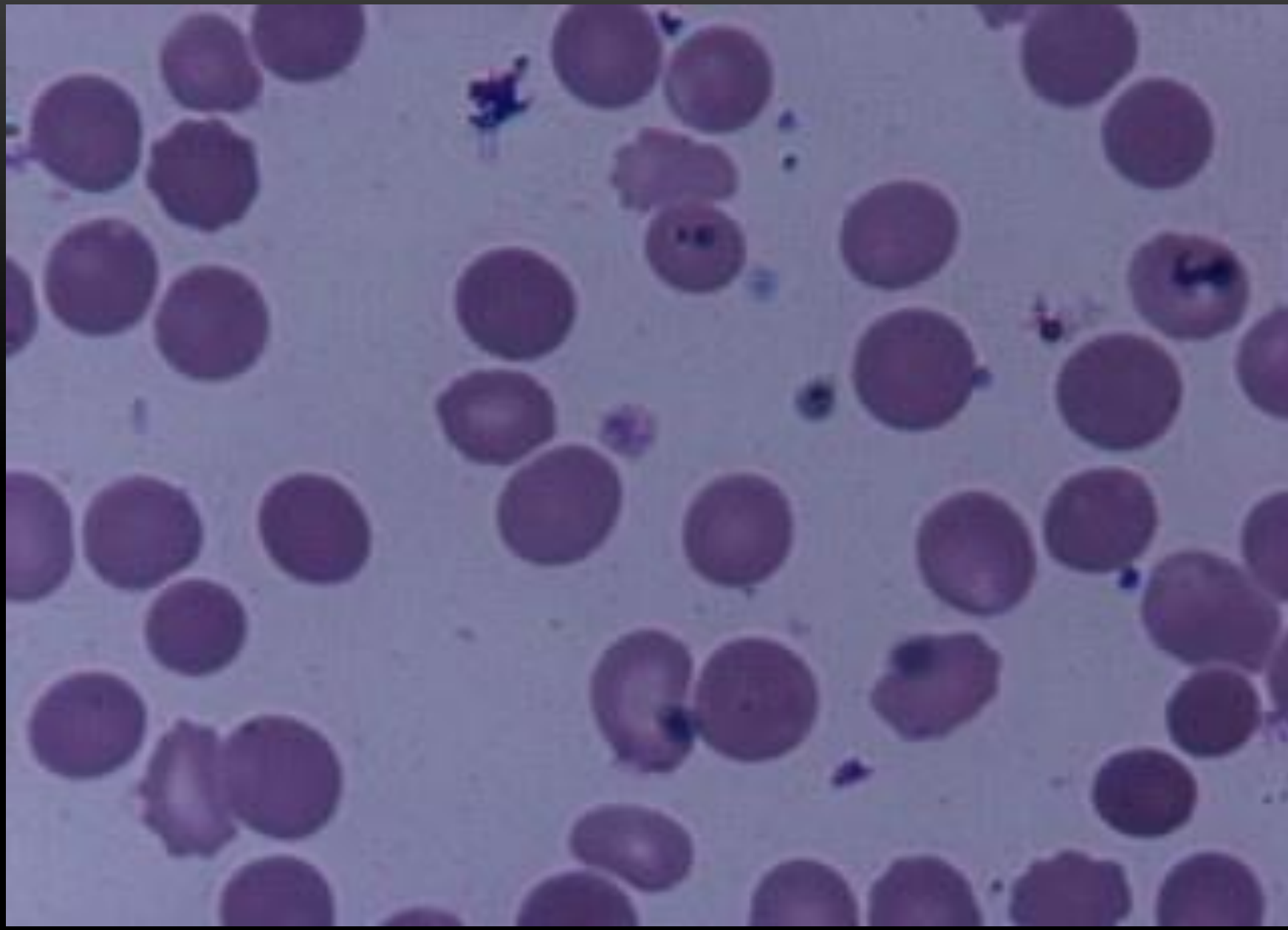
- Blood film morphology :
- RBC : normochromic normocytic with minor population of hypochromic microcytic
- WBC : all are mature , neutrophilic leukocytosis
- Platelets : severly reduced in film with some larg forms .









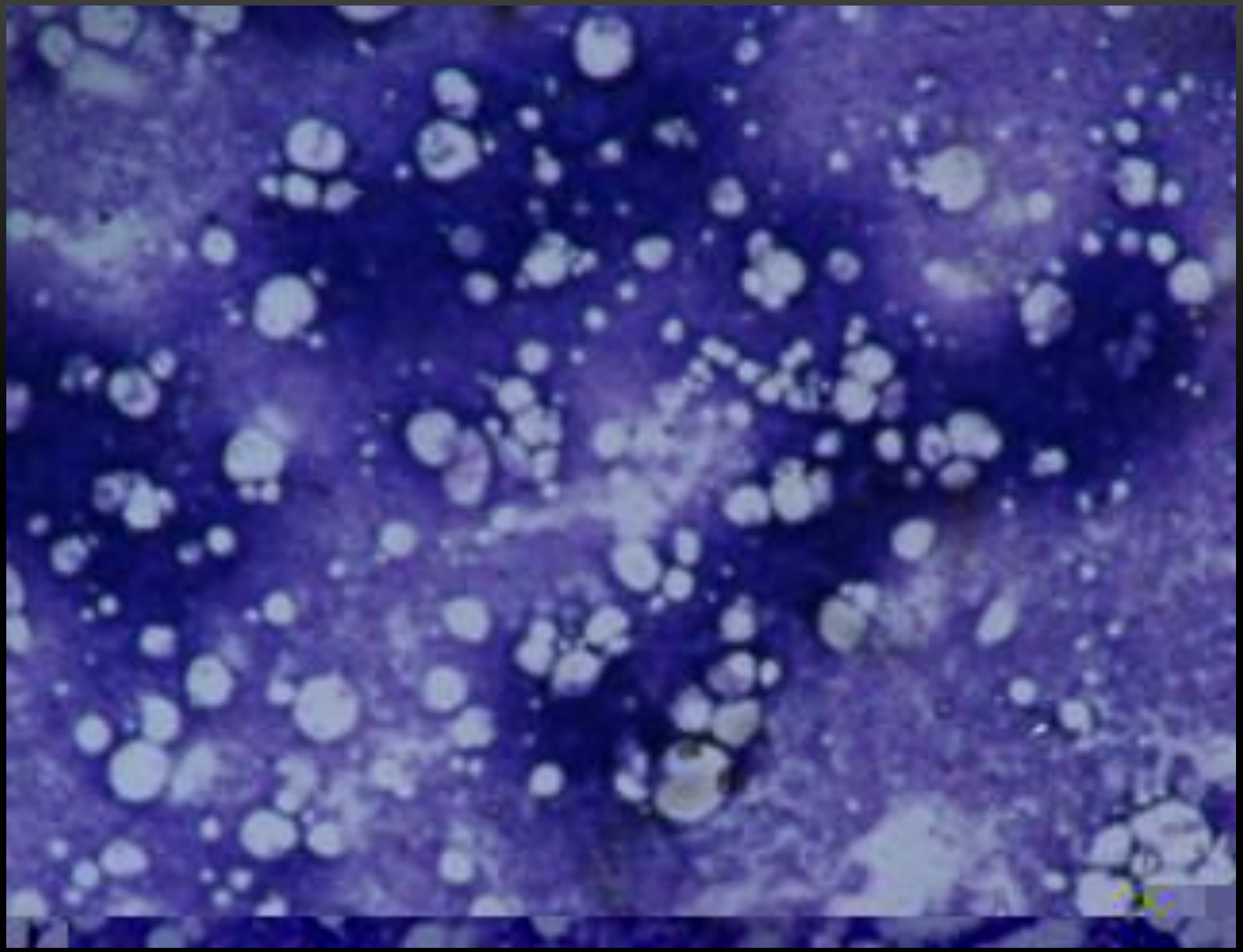


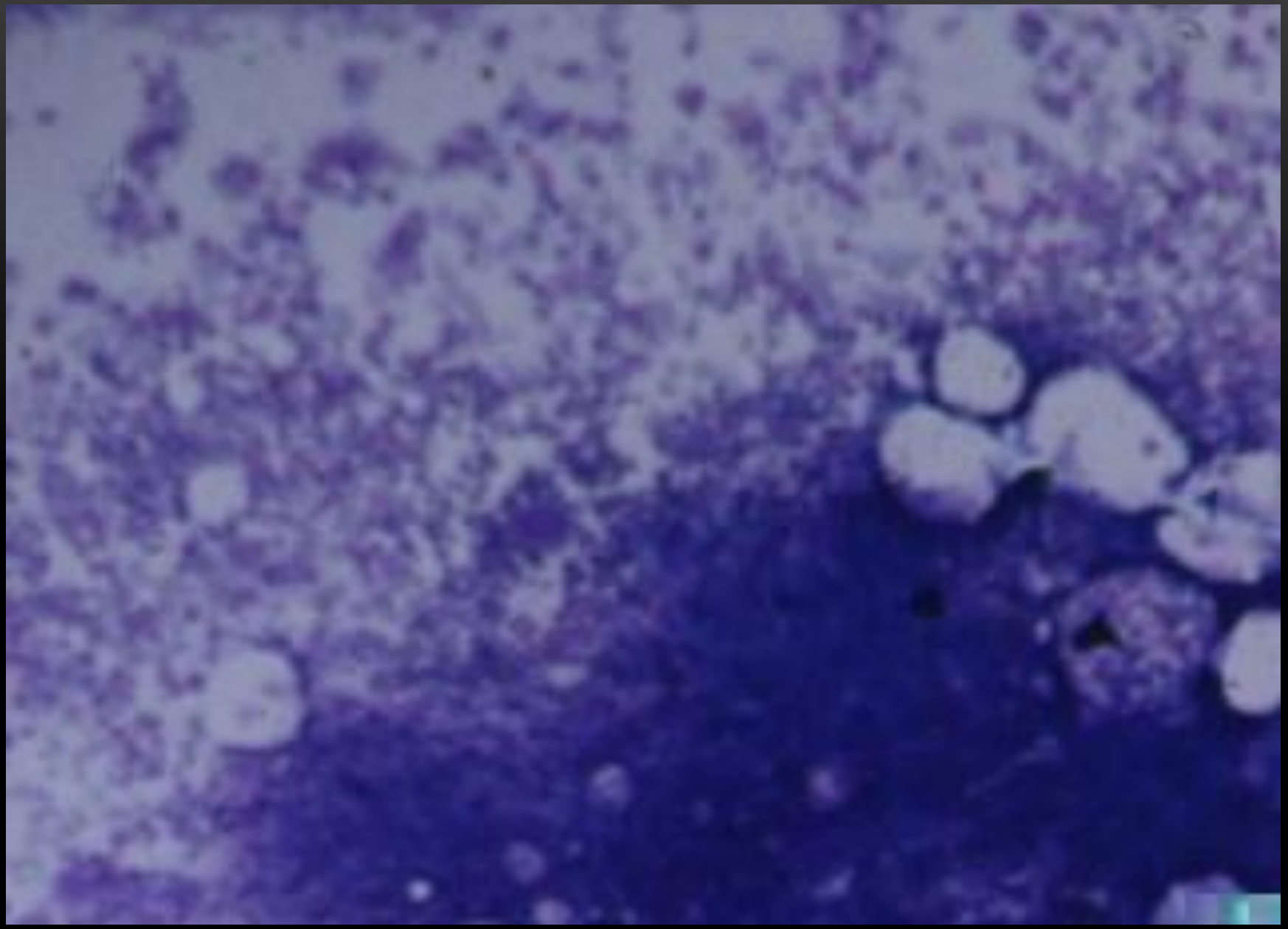
Biochemichal tests

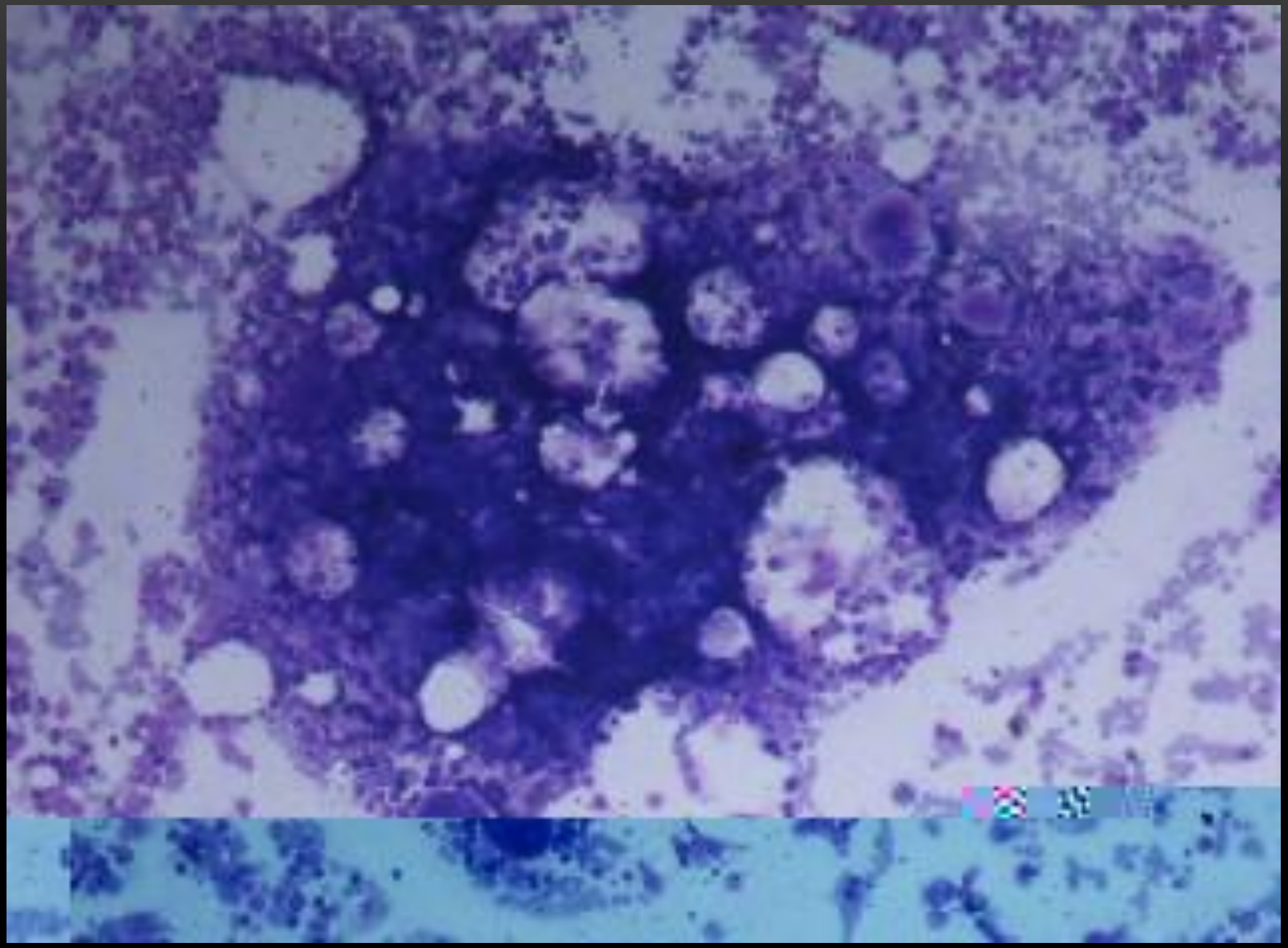
- RBS : 7.4 mmol/l (up to 7.8)
- B. urea : 6.6 mmol/l (3.3 -7.5)
- S.creatinine :102mmol/l (up to 124)
- S.sodium :137mmol/l (135-145)
- S. potassium :3.6 mmol/l (3.5-5.5)
- Ionized ca++:1.27 (1-1.3)

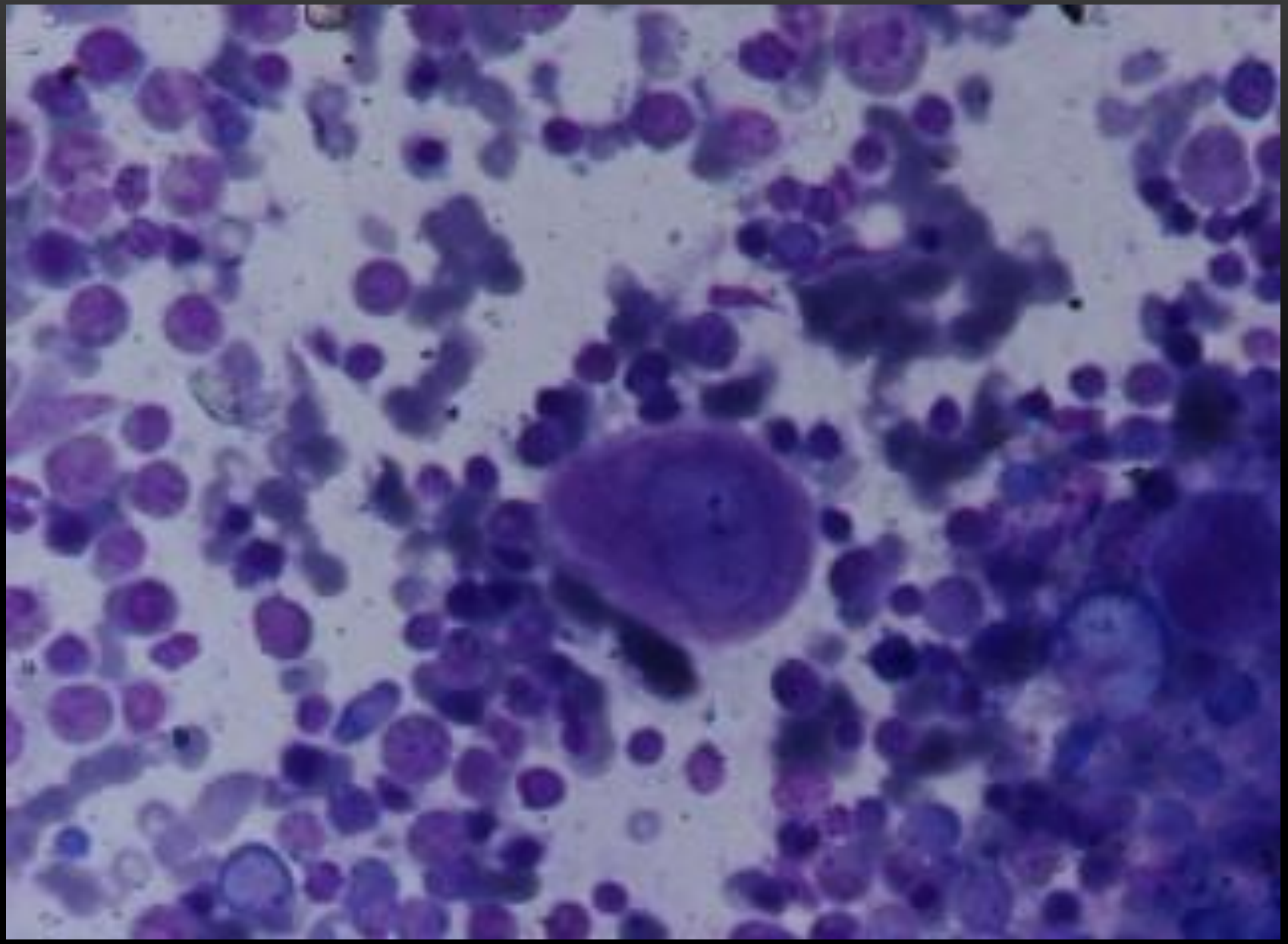
Bone marrow examination

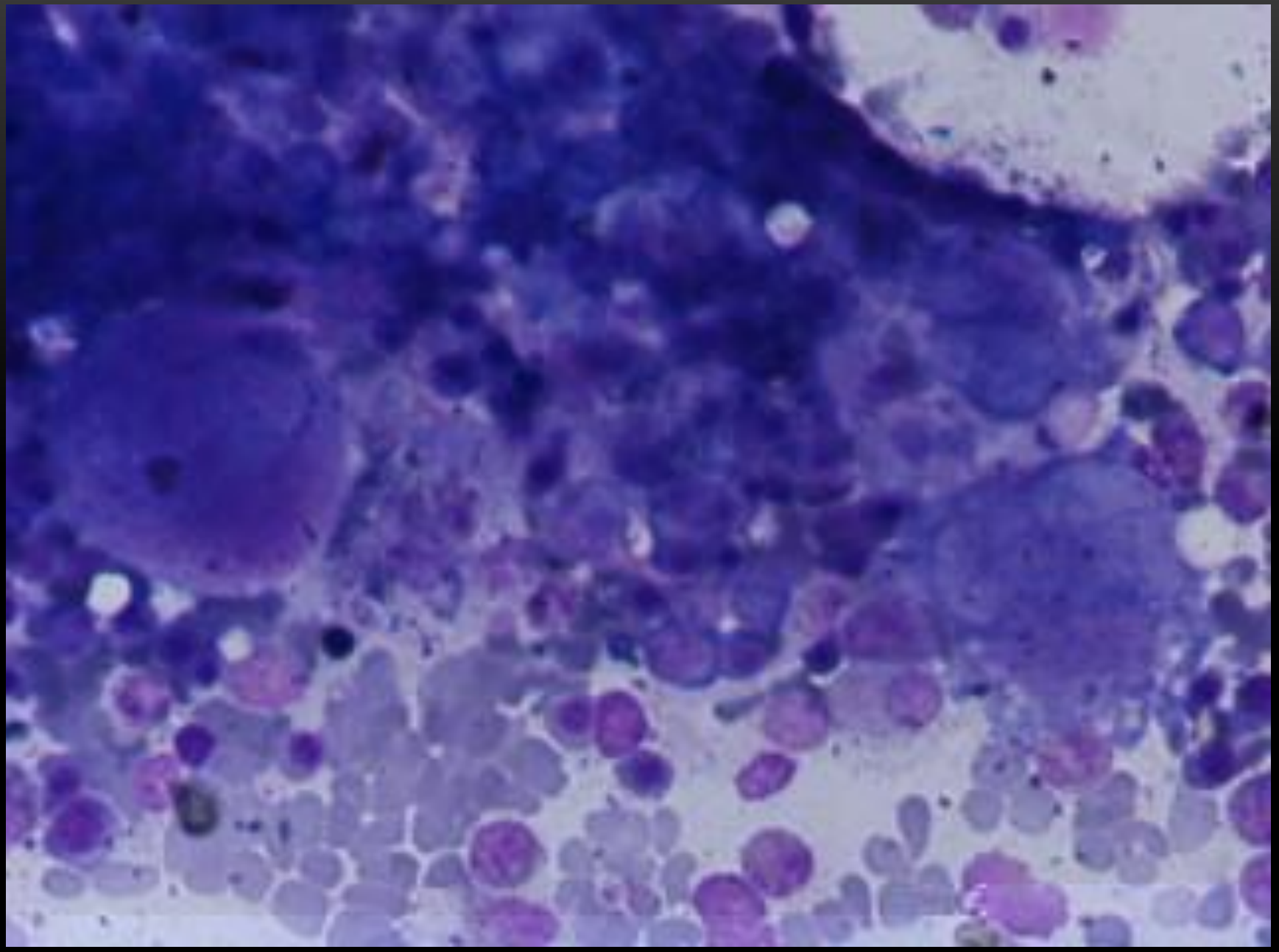
- **Cellularity : hypercelluler b.m fragment**
- **Erthropoiesis: increased activity , nomoblastic maturation**
- **Leucopoiesis : normal activity , normal maturation , no increase in blast**
- **Megakaryopoiesis : increased in number**
- **Iron stain : iron absent in fragment**
- **Conclusion : ITP , with erythroid hyperplesia**

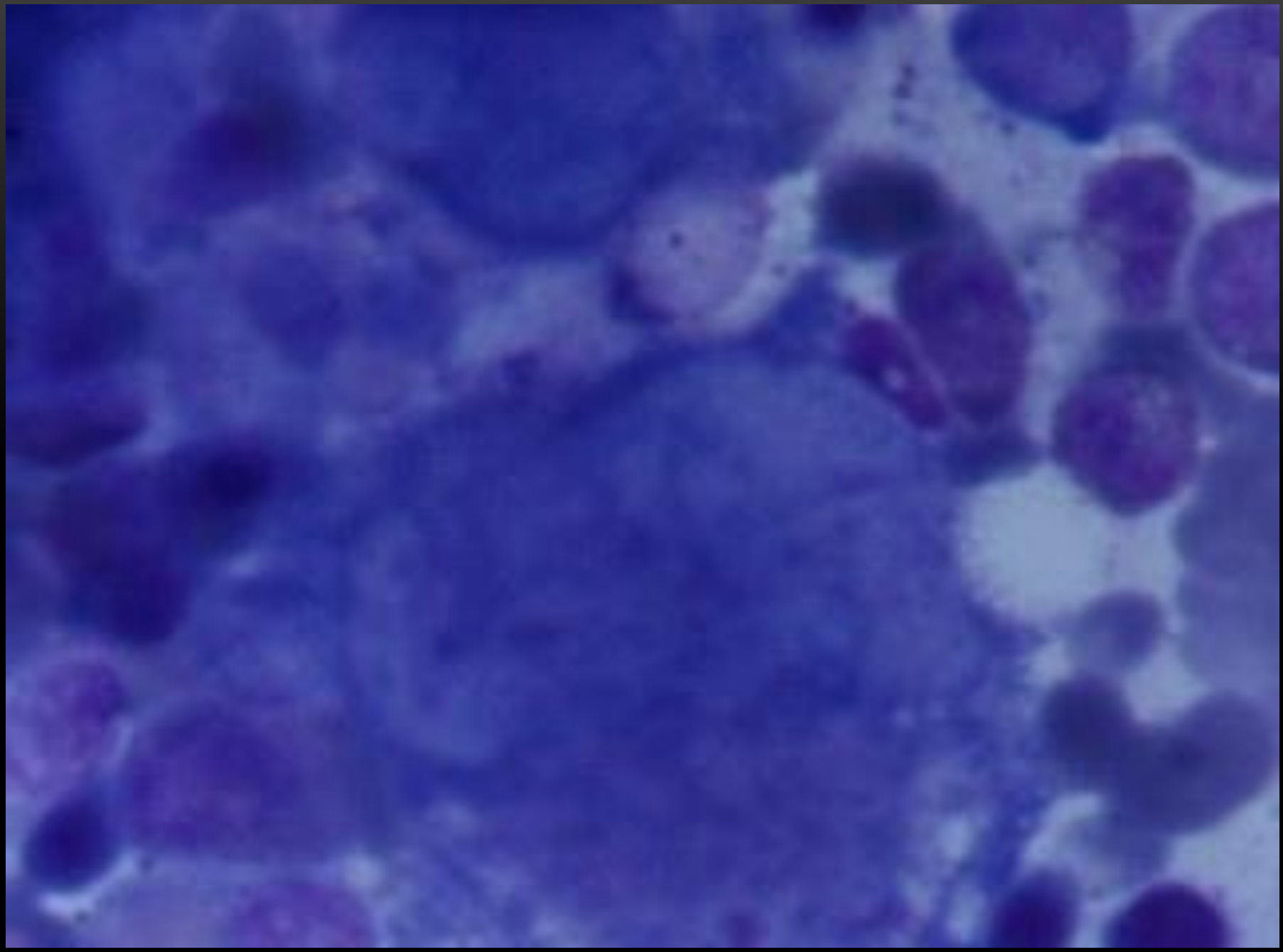












MRI OF BRAIN

- evidence of sub arachnoid haemorrhagic foci in cerebellum with multiple foci white matter lesion in both cerebral hemisphere

CT OF BRAIN

- Evidence of intra cranial haemorrhage is noticed
- With aging brain atrophy

ITP

- **Immune (autoimmune, idiopathic) thrombocytopenic purpura is a common acquired autoimmune disorder defined by a low platelet count secondary to accelerated platelet destruction or impaired thrombopoiesis by antiplatelet antibodies. The diagnosis of ITP requires decreased platelets on the blood film and the exclusion of other causes of thrombocytopenia.**

Normal or increased numbers of marrow megakaryocytes are found in the majority of patients.ITP can be classified based on the absence or presence of other diseases (primary or secondary), patient age (adult or childhood ITP), and duration of thrombocytopenia (acute or chronic).

Causes of Immune-Mediated Thrombocytopenia

1. Primary
   A. Idiopathic autoimmune thrombocytopenic purpura
2. Secondary
   A. Autoimmune diseases: systemic lupus erythematosus, antiphospholipidsyndrome,
   B. Lymphoproliferative disorders: chronic lymphocytic leukemia, Hodgkin lymphoma, large granular lymphocytic leukemia
   C. Infection
   D. MDS
   E. Agammaglobulinemia
   F. Drugs

- ITP is relatively common, In one detailed study, the reported annual incidence of ITP was 5.5 per 100,000 persons when defined by a platelet count of less than 100 x 10^9/L and 3.2 per 100,000 using a cutoff platelet count less than 50 x 10^9/L.The estimated female-to-male ratio was 1.7. The incidence of ITP increases with age, being twofold higher in populations older than age 60 years than in those younger than age 60 years.

- **The presentation and management of ITP are different in adults and children. Childhood ITP typically is acute in onset. Boys and girls are equally affected, and the condition often develops after a viral infection or vaccination. Although thrombocytopenia may be severe, it usually resolves spontaneously, within a few weeks up to 6 months.**

Pathophysiology

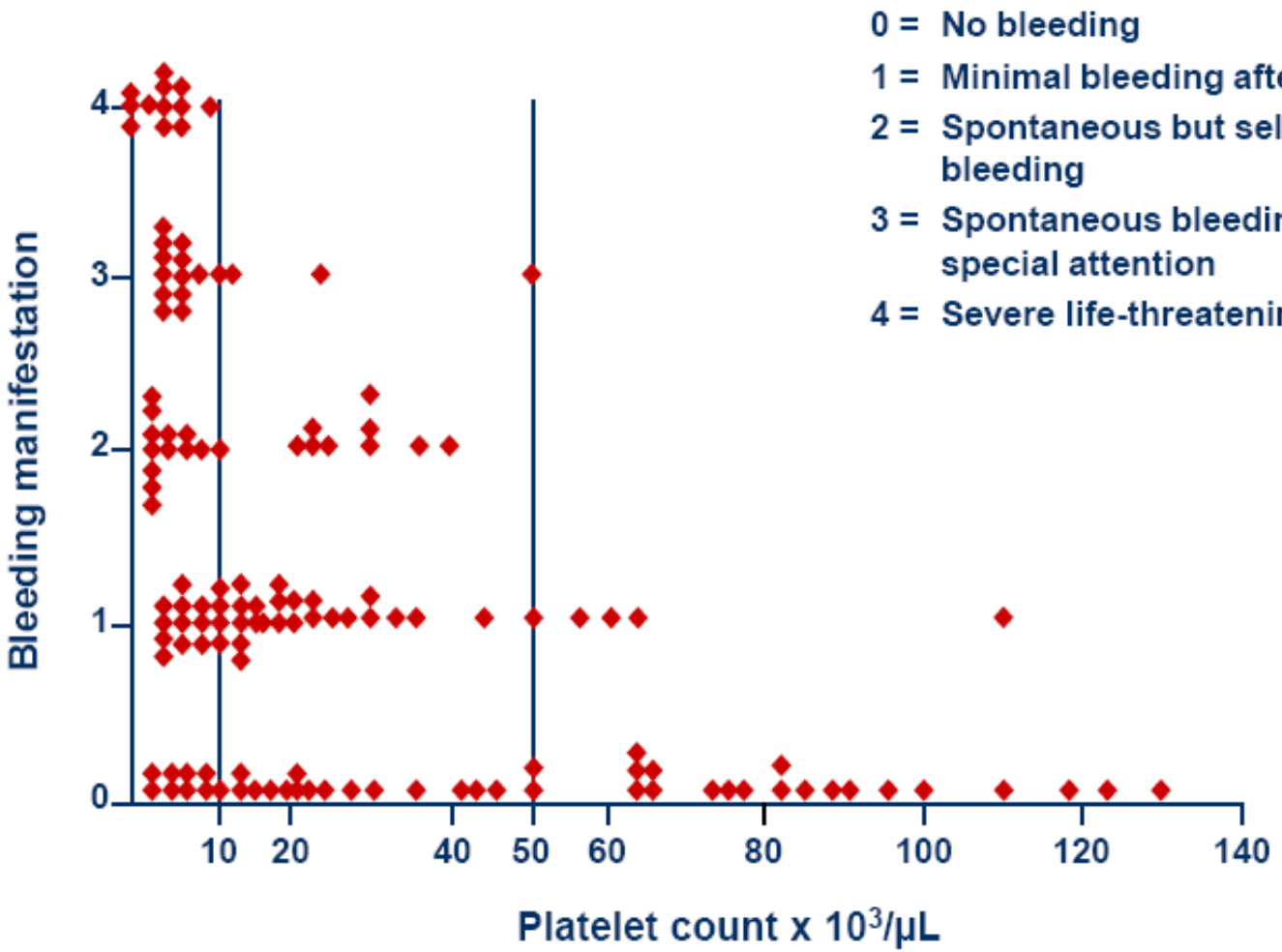
- **The syndrome of ITP is caused by platelet-specific autoantibodies that bind to autologous platelets, which are then rapidly cleared from the circulation by the mononuclear phagocyte system via macrophage Fcγ receptors predominantly in the spleen and liver .**

- Complement activation may also play a role in thrombocytopenia in some patients with ITP.
- The potential role of *Helicobacter pylori* in the pathogenesis of chronic ITP is controversial

BLEEDING MANIFESTION

- **BLEEDING MANIFESTION of ITP depend on the platelet count. Approximately one-third of patients have platelet counts greater than 30 x 10^9/L at diagnosis and no significant bleeding, although bleeding symptoms are generally seen in patients with counts below this level. Purpura (ecchymoses and petechiae), epistaxis, menorrhagia, and gingival bleeding are common. Hematuria, hemoptysis, and gastrointestinal bleeding are less common.**

Disease considerations: platelet count and bleeding in ITP



Lacey & Penner. Semin Thromb Hemost 1977;3:160–174

Central Nervous System

Intracranial hemorrhage is the most serious complication of ITP. Fortunately, it is rare, affecting 1-2% or less of patients with severe thrombocytopenia .

The hemorrhages usually are subarachnoid, often are multiple, and vary in size from petechiae to large extravasations of blood. Numerous small hemorrhages often are seen in the retina; subconjunctival hemorrhage may also occur.

- **The incidence of life-threatening complications is highest in patients older than 60 years; however, mortality rates are low in patients with ITP, even in those with severe thrombocytopenia .**

THANK YOU