Islamic university

Radiology techniques Department/ Third Stage

Practical Pathology

Lab.7

By MSc. Nadia Alshabanii

MSc. Ali Alruazik

Sickle cell anemia

Main Topics of this lab:

- Capable of diagnosis of sickle cell anemia

Sickle cell anemia

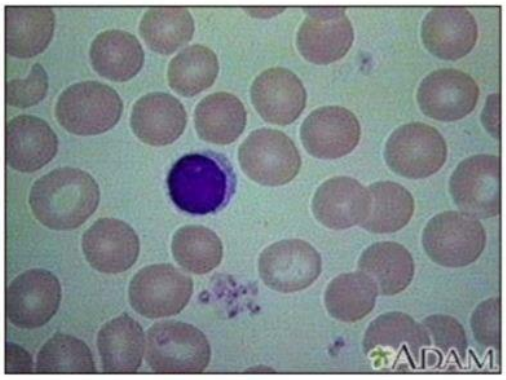
- Sickle cell anemia is a disease passed down through families in which red blood cells form an abnormal sickle or crescent shape.
- autosomal recessive genetic disorder.

• The presence of two defective genes (SS) is needed for sickle cell anemia.

- Sickle cell anemia is inherited from both parents. If you inherit the sickle cell gene from only one parent, you will have sickle cell trait. People with sickle cell trait do not have the symptoms of sickle cell anemia.
- •loss of red blood cell elasticity
- In sickle-cell disease, low-oxygen cause red blood cell sickling and damage the cell membrane and decrease the cell's elasticity.
- The rigid blood cells are unable to deform as they pass through narrow capillaries, leading to vessel occlusion and ischemia
- The actual anemia of the illness is caused by hemolysis, the destruction of the red cells inside the spleen

MSc. Nadia Habeeb
MSc. Ali alruazik

Cell Morphology



Red blood cells, normal cell

Red blood cells, sickle cell

MSc. Nadia Habeeb
MSc. Ali alruazik