

Slide 1

THALASSEMIA

Congenital Disorder of the Globin Genes

Slide 2

TYPES OF THALASSEMIA

- α Thalassemia
- β Thalassemia

Slide 3

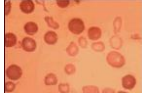
CLINICAL FINDINGS

- Anemia – Microcytic, Hypochromic
- Splenomegally
- Gallstones
- Skeletal Abnormalities
- Iron Toxicity

Slide 4


LABORATORY FINDINGS

- Decreased RBC, Hg, HCT, MCV, MCHC, MCH, Haptoglobin
- Increased Retic, RDW, Bilirubin
- Target Cells, Basophilic Stippling, Nucleated RBC



Slide 5

α THALASSEMIA



- Diploid State – 4 α genes
 - No α genes = Hydrops Fetalis
 - 1 α gene = Hemoglobin H Disease
 - 2 α gene = Thalassemia Minor
 - 3 α gene = Silent Carrier
- Mediterranean, Asia, & African

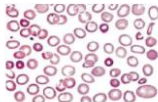



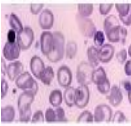
Figure 1. Peripheral blood smear in hemoglobin H disease. Abnormal hypochromic, microcytic cells with target cells and polychromasia (hematology, 100x)

Slide 6

β THALASSEMIA



- Mediterranean
- β Thalassemia Major
 - Marked anisocytosis, Target cells, Schistocytes, Teardrops, & Ovalocytes
- β Thalassemia Minor
 - Mild Microcytosis with Target Cells
- β Thalassemia Intermedia
 - Moderate Microcytic Hypochromic Anemia



Slide 7

OTHER THALASSEMIAS & THALASSEMIA -LIKE CONDITIONS

- $\delta\beta$ Thalassemia
- $\gamma\delta\beta$ Thalassemia
- Hemoglobin Constant Spring
- Hereditary Persistence of Fetal Hemoglobin
- Hemoglobin Lepore
- Combination Disorders
