Chapter 15: Hemolytic Anemias: Membrane Defects

Outline

1. Overview
2. Review of structure of RBC Membrane
3. Membrane defects
   i. Skeletal protein abnormalities
      1. Vertical
      2. Horizontal
      3. Lipid composition
4. Disorders
   i. Hereditary spherocytosis
      1. Pathophysiology
      2. Clinical findings
      3. Lab features
         a. Diagnostic tests
      4. Treatment
   ii. Hereditary elliptocytosis
      1. Pathophysiology
      2. Clinical findings
      3. Lab features
      4. Treatment
   iii. Hereditary pyropoikilocytosis
      1. Pathophysiology
      2. Clinical findings
      3. Lab features
   iv. Hereditary Stomatocytosis Syndromes
      1. Overhydrated hereditary Stomatocytosis
      2. Dehydrated hereditary Stomatocytosis
         a. Lab Features
   v. Membrane lipid disorders
      1. Acanthocytosis
   vi. Paroxysmal nocturnal hemoglobinuria
      1. Pathophysiology/ Etiology
      2. Clinical features
      3. Lab features
      4. Diagnostic tests
      5. Treatment/Therapy
6. Etiology

7. Sites of Destruction
   i. Intravascular
   ii. Extravascular
   iii. Definition

6. Intravascular Destruction
   i. Process
   ii. Causes

7. Extravascular Destruction
   i. Process
   ii. Causes

8. Source of Defect of RBC
   i. Intrinsic
      1. Abnormality of RBC
      2. Hereditary
      3. Type of hemolysis
   ii. Extrinsic
      1. Antagonist in cell environment causing cell injury
      2. Acquired
      3. Type of hemolysis