

# Haemolytic Anemia

Def:

- Disorder in which Red blood cells are destroyed Prematurely
- Broken down at a faster rate than the bone marrow produce new cells.
- Hereditary Disorder or Acquired
- These type of Hemolytic Anemias are less common than caused by Excessive blood loss / decreased - HB or RBC production
- Classified as Inherited Anemias  
Acquired "

Inherited → caused by Defects in components of RBC / the cell membrane / Enzymes / Hb.

Acquired → Form various other causes

Non Immune  
Due to

1. Trauma
2. Toxins → Snake venom / plant poison
3. Drugs → Ribavirin
4. DIC HELLP Syndrome

Immune

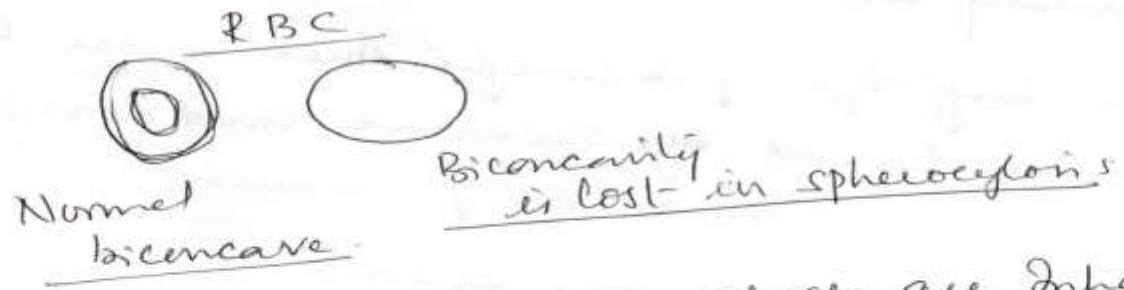
1. Idiopathic
2. SLE
3. Evans's syndrome
4. Rh Disease
5. Hemolytic Disease of New born.

Etiology: Hemolytic anemias (Inherited)

Interfere w Normal RBC production

Ex: Hereditary Spherocytosis

where Normal disc shaped RBC becomes spherical cells are oval rather than disc shaped.



Other Hemolytic anemias which are inherited include disorders of Hb → Ex sickle cell Thalassemia.

Causes of Acquired Hemolytic

Medications & Infections

Develop antibodies bind to RBC

Destroyed in spleen

Then Antibodies → React w RBC → At body temp called warm-antibody hemolytic anemia which causes premature RBC destruction

(3)

About 20% Hemolytic anemias are caused by warm antibodies - Diseases like "Lymphocytic Leukemia"

10% from auto immune &

→ Cold antibodies anemia → condition where they react to RBC at temp below the Normal body temp.

— RBC are also destroyed during circulation to blood vessels. like: Aneurysms, Artificial Heart Valves, Very High B.P. } cause cells to break up.

Symptoms

Shortness of Breath  
↑ sed HR on Exercise

Fatigue

Pale appearance

Dark urine

Taenidice of (Yellowish discoloration of skin & eyes)

Signs

Enlarged Spleen

Pain in upper abdomen

Severe anemia is indicated if signs of Heart failure or Enlarged Spleen.

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Diagnosis

Examination of blood

for Number of  $\uparrow$  sed Immature RBC

Shape of RBC -

Abd checked for Spleen Enlargement -

Antiglobin test - In case of Immune Hemolytic anemia - this will be always Positive -

Treatment

Depend on type of Anemia

$\times$   
Underlying cause is treated

- If due to Hereditary Spherocytosis  $\rightarrow$  Splenectomy
- Corticosteroids are effective
- If cause is Medication  $\rightarrow$  Should be stopped
- In case of Sickle cell  $\times$  Thalassemia  $\rightarrow$  Blood transfusion

Prevention: <sup>Anemias</sup> few cannot be prevented as they are  
??

Acquired can be ?? if the  
Underlying disorder is handled properly.