

DISEASES INVOLVING BLOOD PLATELETS-II

DEPARTMENT OF ORAL PATHOLOGY

LEARNING OBJECTIVES

- At the end of the lecture student should be able to
- Describe etiology, clinical features & histopathological features of thrombocyasthenia
- Describe etiology, clinical features & histopathological features of thrombocytopenic purpura

- **THROMBOCYTASTHENIA**

- It is characterized by qualitative defect in the blood platelet.

- **FAMILIAL THROMBASTHENIA** (Glanzman thrombasthenia)-hereditary, chronic hemorrhagic disease transmitted as an autosomal recessive trait.

- **C/F** -Excessive bleeding following minor trauma.

- Purpuric hemorrhages of skin are common.
- Epistaxis and GIT bleeding.
- O/F-
- Spontaneous gingival bleeding.
- Palatal petechiae.
- L/F-Bleeding time prolonged
- Clot retraction is impaired .
- Number of platelet normal.
- Amount of certain membrane glycoprotein on the surface of the platelet is reduced.

THROMBOCYTOPATHIC PURPURA

- A group of rare disorders of unknown etiology in which the patients manifest a bleeding tendency due to qualitative defects in blood platelets.
- Severe bleeding tendency and bruise easily even after minor trauma.
- Menstrual bleeding so severe as to require blood transfusion.

O/M : Gingival bleeding

- Excessive and prolonged bleeding from dental extractions may be a serious management problem.

L/F

- Platelet count – Normal
- Bleeding time prolonged or normal
- **Storage pool disease** – Deficiency in nonmetabolic storage pool of the platelet adenine nucleotides.
- **Portsmouth syndrome:** Abnormal or absent collagen induced platelet aggregation.
- **Bernard soulier syndrome** – abnormal platelet response to fibrinogen

Treatment : Conventional haemostatic agent and blood transfusion.

THROMBOCYTHEMIA (THROMBOCYTOSIS)

- It is characterized by increase in number of platelets.
- Types – **Primary** → unknown
 Secondary → after injury, inflammation,
 surgical procedures or parturition.
- In association with anemia, myeloid leukemia, tuberculosis, polycythemia.
- **Secondary** thrombocytosis may be due to over production of cytokines – IL-1, IL-6, IL-11

C/F

- Bleeding tendency inspite of elevated platelet count.
- Epistaxis and bleeding into GIT

O/M

- Spontaneous gingival bleeding
- Excessive and prolonged bleeding after dental extraction.

L/F- Platelete count increase 14 lacs per cubic milimeter.

- Clotting time, prothombin time, clot retraction and tourniquet test → normal

SUMMARY

- Etiology, clinical features & histopathological features of thrombocyasthenia.
- Etiology, clinical features & histopathological features of thrombocytopenic purpura

BIBLIOGRAPHY

- Shafer's-6th edition- Oral Pathology
- Sembulingam- Physiology

THANK YOU!