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class idea : 16793

Section. : B

Assignment : Hematology

1) Leukopenia:- Leukopenia is a decreased number of white blood cells. A person is said to have Leukopenia when total white blood cells count falls below 4,000 white blood cells per microliters of blood. There are basically two types of Leukopenia. The main type is neutropenia which is a decreased number of neutrophils.

2)_ Lymphocytosis:- Lymphocytosis (lim-_foe-sie - Toe- sis) or a high lymphocytes count is in increases in white blood cells called lymphocytes. Lymphocytes help, fight of the diseases so it normal to see a temporary increase after an infections.

A count sagnificantly higher than 3,000 lymphocytes in a micoliter of blood is generally considered to be Lymphocytosis in adult in children threshold for Lymphocytosis varies with age. It can be as high as 9,000 lymphocytes per microliter. the exact threshold for Lymphocytosis can very slightly from one lab to another.

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3) Lymphopenia:- Lymocyte count on FBC in an adult patient that is below the lower limit of the normal range.

- Lymphopenia is common finding especially in elderly patient. Where it is frequently of no clinical sagnificance. No further investigation is advised in an elderly patient with a Lymocyte count $> 0.5 \times 10^9/l$ in the absence of any concerning symptom.

- Lymphopenia may reflect a response to stress such as an accute infection recent surgery or be iatrogenic secondary to medication especially immunosuppressant such as steroids. Most cases are reversible and do not require specialist evaluation.

4) Basophilla:- Basophilla is a condition of having greater than 200basophill $<ul$ in the vanious blood. Basophill are the least numerous of the myelogenous cell and it is rare for their number to be abnormally high without changes to other blood components.

5) Neutrophils:- Neutrophils (also known as neutrocyte or hetrophils) are the most abundant type of granulocytes and make up 40% to 70% of all white blood cells in human. They form essential part of the innate immune system with their functions varing in different animals.

6) Thrombocytosis:- Thrombocytosis is a condition in which there are an excessive number of platelets in the blood. Platelets are blood cells in plasma that stop bleeding by sticking together to form a clot. Too many platelets can lead to certain condition including stroke, heart attack or a clot in the blood vessels.

7) Thrombocytopenia:-

Thrombocytopenia is a condition in which you have a low blood platelets count. Platelets (thrombocyte) are color less blood cell that help blood clot. Platelets stop bleeding by clumping and forming plug in blood vessels injuries.

8) Polycythemia:- Polycythemia refer to in increase the number of red blood cells in the body. The extra cell cause the blood to be thicker, and this, in turn increase the risk of other health issues such as blood clots.

Polycythemia can have different causes each of which has its own treatment options.

9) Anemia:- The condition of having a lower-than-normal number of red blood cells or quantity of heamoglobin. Anemia diminish the capacity of the blood to carry oxygen. The patient with anemia may feel tired, fatigue easily appear pale develop palpitations, and become short of breath.

10) Leukemia:- Leukemia also spelled leukaemia is a group of blood cancers that usually begin in the bone marrow and result in high number of abnormal blood cells. These blood cells are not fully developed and are called blast or Leukemia cells.

11) Reticulocytosis:- Reticulocytes are immature red blood cells (RBCs). In the process of erythropoiesis (red blood cells formation), Reticulocytes develop and mature in the bone marrow and then circulate for about a day in the blood stream before developing into mature red blood cells.