NAME IHSAN ULLAH

ID 15250

SUBJECT WBC DISSORDERS

DEPARTMENT BS-MLT

QNO.01:-

ANSWER-NO.1:-

-LEUKOPOIESIS:-

-It is form of hematopoises.

-In which leukopoiesis are form in bone marrow.

-Formation of WBC.

TYPES OF LEUKOPISES

-There are main two types of leukopuses…

1-Graneulocytopoises;

-Also called Granulocyte.

-It is a granulated cells with poly sigment nuclei.

-There are three types of cells.

1. NEUTROPHILE:-

-High N:C ratio.

-Basophilic cytoplasm.

-Round neuclus .3-4

-Chromatin difuse.

-Neucleoli appeas.

-Contain lysosomal granules.

DIFFERENTIAL:-

-50% TO 70% in human body.

FUNCTIONS:-

-Realse chemical.

-Help in phagocytosis.

1. ESINOPHILS:-

-Also called EOS.

-Have bi lobed -2 segments.

-Blue cytoplasm.

-Red orange granules.

- Life spleen.

- 7---12 days

DIFFERENTIAL:-

-3---4% normally present in human blood.

FUNCTIONS:-

-Help in allergic reaction.

-Inflamation.

-Defense against parastic infection.

1. BASOPHILS:-

-Also called BASO.

-Blue cytoplasm.

-Lobulate Nucleus.

-Purpule staining granules.

LIFE SPAN:-

-12---15 days

DIFFERENTIAL:-

-1—2% in blood.

FUNCTIONS:-

-Immediated hypersensitivity reaction.

-Parasitic infection.

- Allergic infection.

2- A-GRANEULOCYTOPIEOSIS:-

-Also called Agraneulocytes.

-There are Two Types of cells.

* + MONOCYTES:-

-It is a large cell.

-Gyrish cytoplasm.

-Lobulated nucleus.

-Oval Nucleus.

LIFE SPAN:- -2----5 days.

DIFFERENTIAL: -2—8% in blood. FUNCTION:- -Function in tissue where they d/f into long-lived macrophag.

-Antigen presenting cell.

-Help in immune cells.

* + LYMPHOCYTE:-

-They are small.

-High neuclur.

-Danse chromatin.

LIFE SPAN:-

1 DAY.

DIFFERENTIAL:-

-25-----35%.

QNO.02:-

ANSWER NO.2:-

CRONIC - PHASE:-

-85% patients have chronic phase.

-The diseased is Asymptomatic of mild symptoms.

-Blast cells present less than in 10%.

-Spleen is Normal.

-Anemia Not seen.

-Thrombocytosis .

Excessive platlets.

-They can transmitted to accelerated phase.

ACCELERATED - PHASE :-

-Blast cells presents 10-19% in blood.

- >20% basophilis.

-Platlets < 100,000.

-Unrelated to theraphy.

-Chromosomal abnormalities presents.

- WBC increased.

-Marked Sperogomy.

BLAST CRISES/PHASE:-

-It is a final phase.

-Like accute leukemia.

-Progressive is Ripid.

-Survival is short.

--Daignosis based on :-

- > 20% lymphocyte in blood.

- Large blasts on Bonemarrow.

-Chloroma Develop.

QNO.03:-

ANSWERN-NO.03:-

LEUKEMIA:-

-It is a type of blood cancer.

-Blast cells are increased in this type of cancer.

-It is broad term of disease they effected the blood.

-They also affected lympoid system and bonemarrow.

CAUSES:--

* INFECTION :-

-Leukemia of blood.

* HEREDITARY:-

-Down syndrome.

-Also environmental factor cause leukemia.

For-example:-

-Ionieation Radiation.

-Chemical and cettain Drug.

QNO.04:-

ANSWER-NO.04:-

ACUTE-LEUKEMIA:-

-They are develop blast cells.

-It is a young cells.

-They course symptoms quickly.

-They do not dividing.

-They target immature cells.

CHRONIC LEUKEMIA:-

-It is also type of leukemia.

-Many lymphocyte makes in this type of cancer.

-They progression is very slow.

-Commanly they effected the lmpods.

-They can invade other body tissue.

-Symptoms takes long time to apeare.

QNO.05:-

ANSWER-NO.05:-

* RAI-CLASSIFICATION-OF-CHRONICLYMPHOCYTIC-LEUKEMI:-

-That classification is described with staging system.

-It is divided into five different stages.

STAGE-N0.0:-

Lymphocytosis:-

-Mean high level of lymphocytes.

-More than 5000 lymphocytes.

-No physical sign.

STAGE.NO.01:-

-In this stage lympnodes becomes enlarge.

-Liver or spleen is normal.

-Patient have NO Anemia.

-Platlets is normal in this stage.

STAGE.NO.02:-

-In this stage spleen become en large.

-Patient have swallen of lympnode.

STAGE.NO.03:-

-Liver or spleen become enlarged.

-Anemia symptoms will be appear.

STAGE .NO.04:-

-Platlets level become low.

-Patient not have swrllon of lympnode.

-Liver become normal.

CHART OF RAI CLASSIFICATON:-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RAI STAGE | HIGH LEVELOF LYMPHOCYTES | ENLARGED LYMPHNODES | ENLARGED SPLEEN OR LIVER | ANEMIA |
| 0 | YES | NO | NO | NO |
| 1 | YES | YES | NO | NO |
| 2 | YES | YES OR NO | YES | NO |
| 3 | YES | YES OR NO | YES OR NO | YES |
| 4 | YES | YES OR NO | YES OR NO | YES ORNO |

QNO.06:-

ANSWER-N0.06:-

CAUSES OF CHRONIC LYMPHOCYTIC LEUKEMIA:-

-It is caused by multiple genetic mutation.

-Also caused with epi genetic change.

-Agent orange increased the caused of CLL.

-Hepatitis c increased the risk.

-Blood transfusion play ruled as a risk factor.

SYMPTOMS:-

-High while bood cells.

-Specially increased lymphocytes.

-Enlarged lympnode.

-Bone marrow.

PRODUCE LOW WBC PLATLETS AND NEUTROPHIL:-

-Fever.

-Weight loss.

-Infection.

-Feeling tired.