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.