

Lecture Sheet: 12 Science (Chapter-06: Transport in Organisms) Class: IX

Name of the student:	Date: 07/11/2020
Leukemia:	
If the production of RBC is interrupted for any reason and an abnorm	nal increase of WBC
happens then the symptoms of leukemia is detected.	
Leukemia is a blood cancer caused by a rise in the number of white blood	cells in the body.
Q. Is increasing of WBC good or bad? Evaluate it.	
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Types of leukemia	
According to the WHO, there are 50 types of leukemia.	

There are 4 major types of leukemia, based on whether they are acute or chronic, and

myeloid or lymphocytic:

- 1) Acute lymphocytic leukemia (ALL).
- 2) Acute myelogenous leukemia (AML).
- 3) Chronic lymphocytic leukemia (CLL).
- 4) Chronic myelogenous leukemia (CML).

The minor types of leukemia are—

- 1) Chronic myelomonocytic leukemia (CMML)
- 2) Juvenile myelomonocytic leukemia (JMML)
- 3) Large granular lymphocytic leukemia (LGL leukemia)
- 4) Acute promyelocytic leukemia (APL
- 5) Hairy cell leukemia

Causes

Scientists don't understand the exact causes of leukemia. It seems to develop from a combination of genetic and environmental factors.

Risk factors that can cause leukemia are—

- Genetic disorders
- Family history of leukemia
- Human T-lymphotropic virus (HTLV)
- Human immunodeficiency virus (HIV)
- Exposure to petrochemicals, such as benzene
- Extensive exposure to artificial ionizing radiation
- Alkylating chemotherapy agents administered to treat other types of cancer
- Smoking

Symptoms

Leukemia symptoms vary, depending on the type of leukemia. Common leukemia signs and symptoms include—

- Fever or chills
- Persistent fatigue, weakness
- Frequent or severe infections
- Losing weight without trying
- Swollen lymph nodes, enlarged liver or spleen
- Easy bleeding or bruising
- Recurrent nosebleeds
- Tiny red spots in your skin (petechiae)
- Excessive sweating, especially at night
- Bone pain or tenderness
- Vomiting
- Shortness of breath

Diagnosis

- Blood tests
- ✓ Bone marrow biopsy
- ✓ Spinal tap
- ✓ Imaging tests

Leukemia Treatments
The treatment depends on the type of leukemia, how far it's spread, and how healthy the
patient is. The main options are—
 Chemotherapy
* Radiation
❖ Biologic therapy
 Targeted therapy
 Stem cell transplant in bone marrow
 Surgery
Q. Leukemia is a type of blood cancer. Analyze it.