

NEOPLASTIC DISEASES OF LEUCOCYTES (LEUKEMIA)

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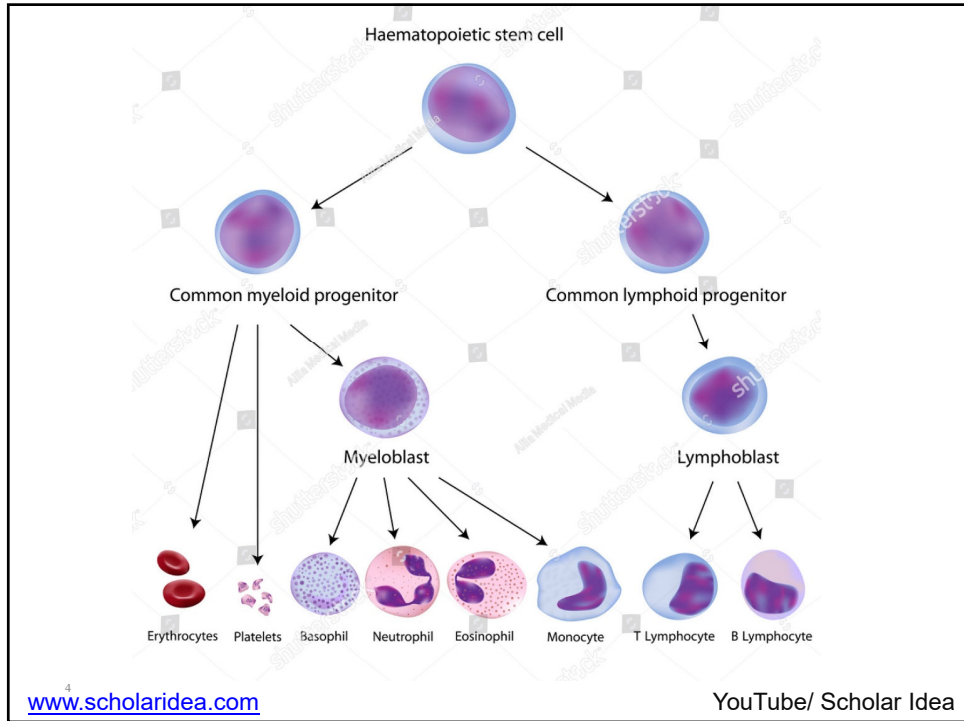
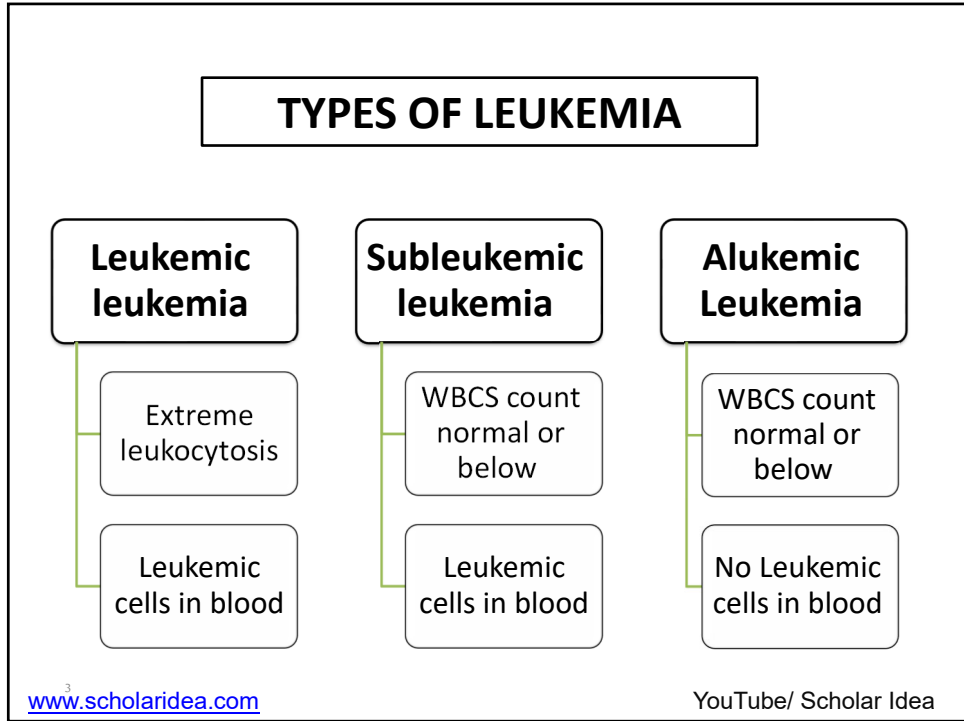
LEUKEMIA

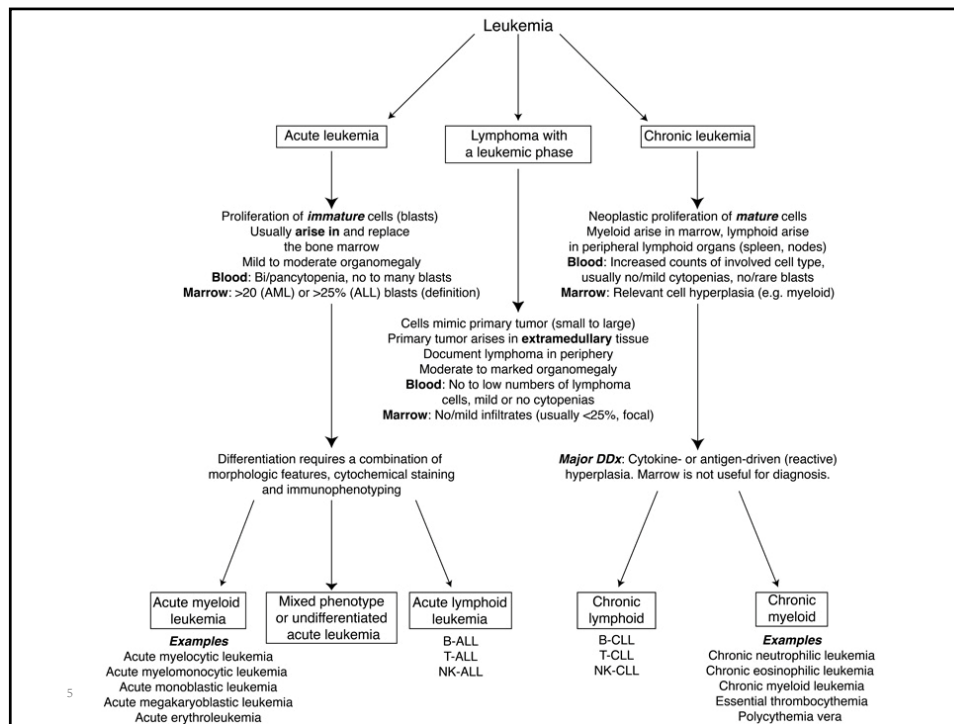
A Neoplastic disease arising in hemopoietic tissues in which increased numbers of immature or abnormal white blood cells appear in the blood or are disseminated diffusely through the bone marrow.

Theories regarding the etiology of leukemia

- Viral infection.
- Genetic influence.
- Ionizing radiations.

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Classification of leukemia

1. According to the duration
2. According to the type of cells
 - A. Myelogenous leukemia
 - B. Lymphocytic leukemia
3. According to the clinical signs
 - Subclinical or clinical leukaemia

Types of leukemia

1. Bovine leukaemia
2. Ovine leukaemia
3. Equine leukaemia
4. Canine leukaemia
5. Feline leukaemia

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1. Bovine leukemia

Lymphocytic in origin

Lymph node

Spleen

Thymus

Malignant Lymphoma

Multicentric

All lymph nodes enlarged

Lymphosarcoma

Unicentric

Spread by metastasis.

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1. Bovine leukaemia

Bilateral enlargement of all superficially located lymph nodes

Enlargement of tissues normally rudimentary as thymus

Splenomegaly, hepatomegaly and enlargement of the heart

The pressure of neoplastic masses on nerves may produce partial or complete paralysis

Presence of immature lymphocytes in blood as lymphoblast and prolymphocytes.

2. Ovine leukemia

- Leukemia in sheep is rare than in cattle this because the life span of sheep is small (2-6 years).
- Clinical signs as in bovine leukaemia in addition to presence of subcutaneous collection of lymphatic tissues.

3. Equine leukemia

As in bovine leukemia.

4. Canine leukemia

Commonly occurs in canine especially at 7 years old

- Granulocytic leukemia
- Lymphocytic leukemia
- Monocytic leukemia

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4. Canine leukaemia

Granulocytic leukemia	Lymphocytic leukemia	Monocytic leukemia
Leucocytosis	Leucocytosis	Leucocytosis
Neutrophilia, eosinophilia or basophilia	Lymphocytosis	Monocytosis
MyelophthESIS	MyelophthESIS	MyelophthESIS
Hyperplasia of the bone marrow	Enlargement of lymph nodes	Depression and chronic cough
Dogs (2-3 Years)	Loss of weight	Bone marrow infiltration
	Distension of the abdomen	Dogs 4 years old

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DIAGNOSIS OF LEUKEMIA

In all aleukemic and subleukemic leukaemias, bone marrow examination is essential to establish diagnosis

Confirmation of leukemia is made by:

1. Total leukocytes count.
2. DLC.
3. PCV.
4. Bone marrow examination.

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Handouts of the Lecture is available on website



The Video of the Lecture is Available on



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