

General Overview on Leukemia

Bassam Abdul Rasool Hassan*

Clinical Pharmacy Discipline, School of Pharmaceutical Sciences, University of Sains Malaysia, 11800, Minden, Penang, Malaysia

Definition

It is a type of blood cancer i.e., attack blood and/ or bone marrow, the most important characteristic for this type of cancer is the abnormal increases in immature white blood cells (blasts).

Causes

There is no specific cause i.e., major one for incidence of leukemia, but there are some factors which do not consider as a major causes but they can play role in the incidence of leukemia, some of these factors are natural and some others artificial.

- 1- Mutation in the DNA.
- 2- Exposure to ionizing radiation or chemicals like benzene or alkylating chemotherapy agents which used for the treatment of previous malignancy.
- 3- Infection with some viruses such as T-lymphotropic Viruses.
- 4- Also people race also play role in incidence of leukemia, Hispanic, Whites, Native Americans, Asians and Alaska Natives races are highly associated with leukemia than other Black races did.

Diagnosis

The main steps which are used to diagnosed leukemia are the following:

- 1- Repeated blood counts.
- 2- Bone marrow examination.
- 3- Lymph node biopsy.
- 4- Observation of clinical signs.

Moreover there are some sub-steps which also used to diagnose leukemia by detecting its effect on other body organs like kidney, liver and brain, these sub-steps include:

- 1- X-ray.
- 2- MRI.
- 3- Ultrasound.
- 4- CT scan.

Clinical Signs and Symptoms Associated with Leukemia

There are many clinical signs and symptoms associated with leukemia as a result of the damage that take place to the bone marrow as a result of displacing the normal bone marrow cells with higher number of immature white blood cell. And as a result of that i.e., increases the number of immature white blood cells over the other components of blood i.e., platelets and RBC leads to several problems.

These problems or signs and symptoms include: bruises, bleeding, petechiae, fever, night sweating, chills, fatigue, dyspnea, pallor, weight loss, enlargement of liver and spleen, sores in the mouth and flu-like syndrome.

Treatment Used for Leukemia

There are several types of treatments used for patients suffer from leukemia these treatments include:

- 1- Combination of chemotherapy regimens.
- 2- Bone marrow transplantation.
- 3- Radiation therapy.

Role of Open Access Journal in this Point

Therefore it is a very important point for the open access journals to encourage researchers and clinicians to work hard in order to clarify the main factors that play role in incidence of leukemia, the main signs and symptoms associated with leukemia and the main treatment used for it.

*Corresponding author: Bassam Abdul Rasool Hassan, Clinical Pharmacy Discipline, School of Pharmaceutical Sciences, University of Sains, Malaysia, 11800, Minden, Penang, Malaysia, Tel: (+6)016-423-0950, E-mail: bassamsunny@yahoo.com

Received November 03, 2012; Accepted November 04, 2012; Published November 06, 2012

Citation: Hassan BAR (2012) General Overview on Leukemia. Pharmaceut Anal Acta 3:e132. doi:10.4172/2153-2435.1000e132

Copyright: © 2012 Hassan BAR. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.