

Title:

General Aspects of Leukemia

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Summary:

Many people suffer from leukemia these days. A large number of cases of cancer are identified to

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Article Body:

Many people suffer from leukemia these days. A large number of cases of cancer are identified to be leukemia. Leukemia is a sort of cancer of the blood and marrow. The disease is characterized through the overproducing of immature blood cells (stem cells) that aren't able to fully develop and to carry out the activities of normal blood cells.

According to their functions and structure, there are three different types of cells within the normal blood: red blood cells, white blood cells and platelets. Through the process of hematopoiesis, these three types of blood cells are developed from a distinctive type of blood cell called stem cell. Stem cells divide and go through several stages of development to finally form a mature blood cell of a particular type, with a certain, distinctive function in the body. The process through which a stem cell morphs into a mature blood cell takes place within the bone marrow.

According to the speed of development and the persistence of the disorder, there are two types of leukemia: acute leukemia and chronic leukemia. Acute leukemia is known to develop very rapidly, while chronic leukemia is developed slowly. According to the types of blood cells affected by the disease, leukemia can either be lymphocytic or myelogenous.

Lymphocytic and myelogenous types of leukemia are developed from different types of cells: the lymphocytic type of leukemia develops from cells called lymphoblasts or lymphocytes in the spongy tissue of the bones, while the myelogenous type of leukemia (sometimes referred to as myeloid and myelocytic leukemia) develops from myeloid cells.

In the case of acute forms of leukemia, the abnormal cells come from early,

immature cells. Such forms of the disorder have a very fast rate of development, due to the fact that normal stem cells tend to multiply frequently. Leukemia cells usually don't divide faster and more frequently than normal stem cells, they simply don't stop their process of division when they should. Sometimes the numbers of white blood cells are very high, while in other cases they can be normal or low.

Chronic leukemia, apart from its slow development, is different from acute leukemia by the level of maturation that the diseased cells are able to reach. Stem cells affected by chronic leukemia reach a higher level of maturation but they present abnormalities and they can't act as healthy white blood cells do. Unlike acute leukemia, in the chronic form of the disease the unhealthy cells have much longer periods of life and they tend to accumulate in different parts of the body.

Leukemia affects people of all age groups. While children usually respond better to the treatment for leukemia and sometimes deal well with the disease, adults difficultly cope with this form of cancer.

Regardless of age and sex, many people are diagnosed with forms of leukemia. Children tend to respond better to some types of leukemia, while adults difficultly cope with the disease. The cases of acute leukemia exceed those of chronic leukemia by approximately 10 percent. Older adults seem to be affected the most by acute leukemia. Around two thirds of acute leukemia cases seem to occur after the age of 60.