Leukemia

Leukemia is a type of blood or bone marrow characterized by strange increase of white blood cells. Leukemia was first discovered by pathologist, Rudolf Virchow in 1845. He observed strange amounts of white blood cells in a blood sample from a patient. He soon observed that in one deceased leukemia patient’s bone marrow was colored “dirty green-yellow” as opposed to normal red. He detected that bone marrow problem was responsible for the abnormal blood of leukemia patients.

There are four major types of Leukemia. Acute Leukemia is characterized by the increase of immature blood cells. Such increase in these cells can make the bone marrow unable to produce healthy blood cells. Therefore, instantaneous treatment is essential due to rapid progression and increase of the malignant cells, which spill over into the blood stream and pervade to other organs in the body. Acute Leukemia is most common amongst children.

Chronic Leukemia is characterized by on-going build up of relatively mature, abnormal white blood cells which progresses through months or years. The cells are produced at a higher rate that usual, therefore ending in strange white blood cells. Chronic Leukemia is monitored for some time before ensured treatment to maximum working therapy. This type of Leukemia occurs mostly through older people, but can occur at any age.

During Lymphocytic Leukemia, the marrow cell that normally goes on to the form of lymphocytes, infection-fighting immune system cells. In Myelogeneous Leukemia, the cancerous change takes place in a type of marrow cell that normally goes on to form red blood cells, some other types of white cells, and platelets. Some rarer types include large granular lymphocytic leukemia, Adult T-cell leukemia, Hairy cell leukemia, and T-cell prolymphocytic leukemia.

Symptoms of leukemia include fevers, chills, night sweats, fatigued and flu-like symptoms. Other reported symptoms include nausea or feeling full due to swollen liver and spleen which can lead to weight loss. No known cause for any types of leukemia exists. The different leukemia’s likely have different causes. Certain mutations can trigger leukemia by activating oncogenes or deactivating tumor suppressor genes, disrupting the regulation of cell death, differentiation, or division.

Most leukemia’s are treated with pharmaceutical medication, combined with multiple drug chemotherapy regimens. Radiation therapy and bone marrow transplant are also useful. Approximately 256,000 people around the world develop a form of leukemia and 209,00 died from it. Boys are more likely to develop leukemia than girls, and white American children are more likely to develop leukemia than black American children.