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A Brief Overview on Acute Myeloid Leukemia and its Complications

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DESCRIPTION

Acute myeloid leukemia is a malignancy of the myeloid blood cell line that is distinguished by the fast proliferation of defective cells in the bone marrow and blood, interfering with normal blood cell synthesis. Tiredness, shortness of breath, bleeding or bruising and an increased risk of infection are all possible symptoms. Spread to the brain, skin or mouth may occur on rare times. Acute myeloid leukemia advances quickly as an acute leukemia and is usually severe within weeks or months if left untreated. Acute myelogenous leukemia occurs when the genetic material or DNA of a bone marrow cell is altered (mutations). Normally, the DNA of a cell instructs it to develop at a specific rate and die at a specific period. Acute myelogenous leukemia mutations instruct bone marrow cells to keep growing and dividing.

When this occurs, blood cell production keeps increasing. Myeloblasts are leukemic white blood cells that develop in the bone marrow from immature cells. These irregular cells are unable to operate normally and can accumulate and drown out healthy cells. Although it is unknown what causes the DNA abnormalities that lead to leukemia, physicians have found risk factors. Smoking, prior chemotherapy or radiation therapy, myelodysplastic syndrome, and benzene exposure are all risk factors. The underlying mechanism includes leukemia cells replacing normal bone marrow resulting in a decrease in red blood cells, platelets, and normal white blood cells. A bone marrow aspiration and particular blood tests are used to make a diagnosis. Acute myeloid leukemia has multiple subtypes each with its own set of therapies and prognosis.

Chemotherapy is often used as the first-line treatment for acute myeloid leukemia with the goal of producing remission. Individuals may subsequently have further chemotherapy, radiation treatment, or a stem cell transplant. The exact genetic alterations found within cancer cells may guide therapy and decide how long a person will survive.

Acute myeloid leukemia complications

Because AML affects blood cells, it might make some things more difficult. Such as anemia is a condition in which the body's red blood cells are insufficient. These cells provide oxygen to all organs and tissues. The body may not get enough oxygen. As a result, patients could feel tired, weak, or out of breath.

Hemorrhage if platelets are destroyed, blood may not clot correctly. There's a chance bleed more easily than usual. When you get a nosebleed, it might be difficult to stop the bleeding. It's also possible that the body will bleed inside, which might be harmful. The immune system is weakened white blood cells in the immune system are usually the first to detect and kill invading germs. The amount of healthy white blood cells available to fight infections is reduced as a result of AML.

Infections are more likely in people who have a weak immune system. Even if you are unwell, body will heal at a slower pace. A doctor may suggest avoiding contact with sick persons and taking antibiotics on a regular basis to avoid infection. Vaccinations can help prevent illness, however some people are unable to receive "live" vaccinations such as the shingles vaccine. The doctor will be able to determine which vaccines are necessary.