

Free essay on negative effects of leukemia and the most affected age group

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The human blood comprises of different cell that perform specific functions. These blood cells include: white blood cells, platelets and red blood cells. The red blood cells are in charge of distributing oxygen from the lungs to all other body parts. The platelets are responsible for the clotting of blood that is necessary in protecting the body from microorganisms when blood is exposed. The white blood cells are in charge of destroying invasive organisms which include viruses and bacteria. These cells are produced in the bone marrow which is a soft tissue found in the interior of bones. The stem cell found in the bone marrow is the primary cell that gives rise to these cells. Depending on the conditions the stem cell can develop into a platelet, a red blood cell or a white blood cell. This article will center on the negative effects of leukemia on the body and the age groups commonly affected.

Leukemia is a form of cancer which affects the bone marrow. Leukemia arises as a result of the stem cell developing into excessive number of white blood cells. Excessive production of these cells has several negative effects on the body. First of all the white blood cell are unable to mature as they should during development. This renders them unable to fight against attacking organisms in the blood. This highly affects the immunity of an individual as the body loses its capability to fight infections.

The excessive production of the white blood cell may clog up the bone marrow reducing the room for development of platelets and red blood cells. Lessened amount of red blood cells in the body leads to insufficient oxygen distribution in the body leads to anemia. Anemia makes the individual feel

weak, experience headaches, have paleness of the skin and feel dizzy. This situation can be grave. Reduced number of platelets leads to poor clotting of blood hence excessive blood loss from even minor injuries.

Another effect of Leukemia is the metastatic growth of the cancer cell in unusual part of the body. Rapid reproduction of Leukemic cells may cause the invasion of the cells to the surrounding bone. This can cause severe pain and makes the bones tender and prone to easy fracturing. Eventually leukemia spreads to the liver, lymph nodes spleen and other vascular parts of the body regardless of the source, whether in the lymph nodes of bone marrow.

Leukemia leads to the excessive utilization of metabolic substrates by the rapidly developing cancer cells. New cells are reproduced rapidly creating a tremendous demand on the body storage for food. The demands are made for vitamins and amino acids in specific. This greatly depletes the individual's energy levels. The standard protein tissues deteriorate rapidly due to the extreme exploitation of amino acids in the body. The continued growth of the cancer tissues incapacitates the functioning of other body tissues.

Leukemia is mostly classified depending on the speed of progression and it can either be chronic or acute. It is then further classified depending on the type of cell it affects. Leukemia affecting the lymphocytes is referred to as lymphoblastic leukemia. Lymphocytes are the cells that fight infections in the defense system of a human being. Leukemia affecting the other white blood cell is referred to as myeloid leukemia.

Leukemia mostly affects children and acute leukemia is the most common

type of leukemia. It is approximated that over three thousand kids are diagnosed with leukemia each year in the United States of America. Though leukemia can affect people in all age group, it mostly affects babies and young children. Development in research and technology has led to the enhancement of survival levels for leukemic children. However, children with acute myeloid leukemia have lower survival level and research is being carried out for enhanced therapies.

Many times leukemia is not easily detected because the symptoms exhibited by people with leukemia are similar to those experienced in other infections such as flu and many common diseases. Acute leukemia sets in suddenly and there is a rapid progression from initial stages that include breath shortness, chest oppression due to oxygen deficiency in the body that leads to sternal softness. The patient also experiences fatigue, fever, cardiac palpitations, loss of weight, pleural effusions, hemorrhages, purple bleeding spots, anorexia, easy bruising, nutritional deficiencies, weak bones, vomiting rigidity of the neck, extreme pain in the joints, weakness and swelling of body organs for instance, liver, spleen, and lymph nodes.

Leukemia affects individuals emotionally, physically and mentally. Emotional effects of leukemia include shock. Shock is the initial reaction to a cancer diagnosis. Most patients experience numbness and do not believe the news. They are unable to express themselves emotionally and they can only absorb a step at a time. Shock makes communication with relatives difficult. Leukemia may also lead to stress. Patients find the information on their illness overwhelming.

As time passes by sadness and depression sets in. this is mainly caused by

the feeling of despair, denial and disbelief. Individuals also experience anxiety, loss of appetite, sleeplessness and worry. Leukemia also causes fear which can also be very overwhelming especially during and after treatment. Fear of possibilities and what might happen to their families, fear of pain and discomfort and fear of death is experienced by patients with leukemia. Anger and guilt are also common emotions that affect leukemia patients. They may be annoyed with God for letting them get sick and mostly vent out this anger towards the care givers and their relatives. Patients may also experience feeling like they are a burden to their relatives.

Just like any other disease, Leukemia has no positive effect on the body of the patient. It causes the patient pain and discomfort. It also causes the patient emotional and psychological problems. Leukemia patients are unable participate in physically involving activities as they always feel fatigued and weak. Emotional problems also affect how people with leukemia relate to other people. This is because they tend to withdraw from the society completely. There is no specified cause of leukemia but there are peril aspects that make people more prone to developing leukemia. These factors include: exposure to extreme levels of radiation which is mainly caused by radiation therapy, atomic bomb explosions and diagnostic x-rays which use radiation. Other risk factors include smoking, exposure to benzene, chemotherapy, family history and certain diseases such as Down's syndrome.

Leukemia can be diagnosed through physical examinations by qualified medical practitioners, blood tests such as total blood count that indicate the amount of white blood cells in the blood in addition to the amount of red

blood cells and platelets in the blood, biopsy where the medical practitioner removes the a little bone marrow from the patient and it is checked in the laboratory for leukemia cells. Other diagnostic tests include chest x-rays, spinal tap and cytogenetic.

Treatment for leukemia can also cause negative effects on the patient's body. Leukemia treatment does not isolate cancer cells; it wipes out cancer cells plus healthy cells. The side effects of leukemia highly depend on the nature of management given to the patient and also vary from one person to another. Cancer treatments targets cells that are constantly dividing hence cancer cells are destroyed more than normal cells. Healthy cells that are likely to be damaged include: hair root cells, digestive track cells and blood cells. Chemotherapy treatment lowers the immunity of a patient and causes the patient reduced energy levels. Patients may also bruise easily and bleed profusely. Cancer patient mostly loose their hair due to the damage of hair root cells by chemotherapy. They may also experience mouth sores, nausea and vomiting.

Some treatments also affect the fertility of patients. Women may not experience their menstrual periods while men could stop generating sperms. Women may also experience menopausal symptoms such as vaginal dryness and hot flashes. Radiation treatment causes the patient to feel very tired and have very red, tender, and dry and itchiness on areas subjected to treatment. Radiation also causes loss of appetite, vomiting and nausea. However, these effects are temporary and decline as the treatment ends. Leukemia has no positive effects on the body. It causes people pain and suffering and eventually death. Though some research argues that children

affected by leukemia tend to want to attend school regularly and are more social than other children their age, the pain they go through surpasses these claims. They get more depressed than normal children and they live a more difficult life uncertain of what the future has in store for them.

In conclusion, leukemia is a category of malignancy that concerns the blood cells and causes excessive production of white blood cells in the body. It has many negative effects on the body of an individual. These effects are physical emotional and mental. Leukemia leads to reduced immunity due to under developed white cells which can not fight against infections leading to multiple and recurrent infections. It also leads to the advancement of anemia owing to diminished red blood cells which distribute oxygen in the body.

Leukemia also leads to excessive utilization of food stuffs in the body leaving the individual with low levels of energy and feeling weak most of the times.

Leukemia has negative emotional effect on individuals. It causes feeling of shock, fear, anxiety, anger, stress, guilt and depression. The origin of

leukemia is unknown but there are risk aspects connected to its

development in the human body. They include: smoking, exposure to

benzene, family history and chemotherapy. Treatment for leukemia is

available but most of the treatments have negative effects on the patient's body. These treatments include chemotherapy, radiation and bone marrow

transplant. Their effects on the body include: lose of hair, intense pain,

nausea and vomiting reduced energy levels and loss of appetite. Leukemia

has no positive effects on the bodies of individuals. It only causes suffering and pain which eventually leads to death.

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