

# Leukaemia in Children: Early Detection and Diagnosis

Jaiyush Laghari\*

Department of Health Sciences, Baba Farid University of Health Science, Faridkot, India

\*Corresponding author: Laghari J, Department of Health Sciences, Baba Farid University of Health Science, Faridkot, India, E-mail: jaiyush249@gmail.com

Received date: March 11, 2021; Accepted date: March 24, 2021; Published date: March 31, 2021

Citation: Laghari J (2021) Leukaemia in Children: Early Detection and Diagnosis. J Clin Mol Pathol Vol.5 No.1: 2.

Copyright: © 2021 Laghari J. 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.

## Description

Leukaemia is cancer of the blood. It is the most common form of cancer in the childhood. The cancer cells grow in bone marrow and goes into the blood. Our bone marrow is the soft, spongy and considered as centre of some bones. It makes blood cells. When a child is said to have Leukaemia, the bone marrow makes abnormal blood cells that don't mature. The abnormal cells are usually the white blood cells also called leukocytes. The bone marrow also makes a fewer healthy cells. The abnormal cells reproduces very quickly and they don't work as same as the healthy cells. The types of blood cells involve Red blood cells (Erythrocytes), Platelets (Thrombocytes), White blood cells (Leukocytes). The exact cause of the disease Leukaemia in children is not actually known. There are certain conditions inherited on from the parents to children that increase the risk for the childhood Leukaemia. But mostly childhood Leukaemia is not inherited and is found the changes or mutations in genes of the bone marrow cells. These changes may occur early in the child's life or even before their birth and may even occur by chance (sporadic).

## Discussion

When a child is said to have Leukaemia, the bone marrow for an unknown reason starts to make a faulty white blood cells. Generally, the body can regulate the production of cells by sending the signals for when to stop producing more. Leukaemia cells usually do not respond to the body's signals. These cells go on to reproducing by themselves, even when there is no much space in the bone marrow. The bone marrow does not just make an infection fighting the white blood cells. It also produces the red blood cells and the platelets. Red blood cells carry the oxygen to all our parts of the body. Platelets help with the blood clotting to stop the bleeding. In Leukaemia, the abnormal white cells reproduce quickly and do not even fight infection well. These faulty white blood cells also called blasts, surrounds the bone marrow. This can mean that not the enough red blood cells or platelets are produced. All this difficulties in the bone marrow thus results in the symptoms of Leukaemia which may include tiredness and problems with infections and bruising or bleeding. Bone pain can also occur as the bone marrow gets expands.

## Conclusion

Treatment for Leukaemia in children depends mainly on the type of Leukaemia as well as the other factors. The survival rates for most types of childhood Leukaemia have risen up over time. Childhood cancers usually tend to respond to the treatment even better than the adult cancers do, and the children's bodies can often tolerate the treatments better. Before this the cancer treatment begins, sometimes a child requires treatment to address the illness complications. For example, some changes in the blood cells can lead to infections or even severe bleeding and may affect the amount of oxygen reaching the body's tissues. Treatment may involve antibiotics, blood transfusions, or the other measures to fight infections. Chemotherapy is considered as the main treatment for the childhood Leukaemia. To keep Leukaemia from returning, there may be a maintenance therapy in cycles over a period of 2 or 3 years. Other types of treatment may involve radiation therapy which uses the high-energy radiation to kill cancer cells and to shrink tumours. It also helps to prevent or treat the spread of Leukaemia to other parts of the body. Surgery is rarely an option to treat the childhood Leukaemia