

Hematological Disorders in Children

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DESCRIPTION

Hematology is about the blood and abnormalities of the blood cells and proteins (plasma) in the blood. Blood consists of highly extensive hematologic issues. Inherited disorders of hemoglobin such as thalassemia and sickle cell anemia, etc. may cause a wide range of clinical complications. Some of the hematologic issues

- Thalassemia
- Sickle cell disease
- Anemia
- Congenital sideroblastic anemia
- Congenital dyserythropoietic anemia

Disorders

Blood disorders affecting red blood cells blood issues that have an effect on red blood cells. Some of the disorders are elaborated below-

Thalassemia: Thalassemia is an inherited blood disorder, in which the genes that produce hemoglobin, the protein in red blood cells that carries oxygen from the lungs to all parts of the body, are broken, resulting in anemia. Iron chelation therapy and sometimes stem cell transplantation is followed to treat this health condition.

Sickle cell disease: Sickle cell disease (SCD) is also hereditary. In this condition, children have an abnormal shape of the red blood cell, which tend to cluster together and stick to the lining of blood vessels, making it difficult for them to move, creating blockages which ultimately results in the movement of blood. **Iron deficiency (anemia):** It occurs due to lack of iron in the diet. A situation where blood does not have sufficient iron content in red blood cells, due to which it lacks to carry oxygen to the cells of the body. This leads to tiredness, pale skin, etc.

Congenital sideroblastic anemia: In this case, bone marrow fails to produce a sufficient number of healthy red blood cells. Instead, it produces sideroblasts (in which iron accumulates in the mitochondria). Iron accumulation within the mitochondria results in prevention of oxygen transport to cells.

Congenital dyserythropoietic anemia: Congenital dyserythropoietic anemia (CDA) is a rare, inherited blood disorders. It is generally characterized by the ineffective red blood cell production, where decrease in the number of red blood cells than the normal quantity can be observed.

Treatment

Treatment depends on the type of disorder the person has been affected. Most commonly, some simple therapies can be followed in order to manage and cure blood disease. Regular annual body checkup, regular exercise and maintenance of good and healthy food habits can help to prevent such disease conditions. Better quantity of sleep each day and intake of foods containing high amount of iron would be helpful in such cases. Iron chelation therapy stem cell transplantation (in case of bone marrow failure) and blood transfusions (if necessary). Use of vitamin and mineral supplements ferrous sulfate and methylprednisolone as therapeutic agents can help to manage and treat blood disorders.

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