

### **Childhood Cancer**

#### Introduction:

Cancer is a broad term given to a collection of related diseases involving the abnormal growth and division of cells in an uncontrolled way with the potential to invade nearing tissue or spread to other parts of the body.

#### Childhood Cancer:

Childhood cancers display differences from adult cancers. This is because the parts of the body that are likely to be affected in children and adults are different. Childhood cancers affect children of all ages and races. As a result of modern developments in treatment options, more children survive cancer than ever before.

The most common types of cancer among children:

- Leukemia.
- Brain cancer.
- Other central nervous system tumors.
- Lymphoma

These types of cancers have been diagnosed mostly in children, and only a small percentage of adults.

The most common types of cancer among Saudi children of both genders (latest statistic was conducted in 2014):

- Leukemia (34.6%).
- Brain and nervous system cancers (15.1%).
- Hodgkin lymphoma (11%).
- Non-Hodgkin lymphoma (7%).
- Kidney cancer (6.4%).
- Bone cancer (6.1%).
- Sarcoma (3.9%).
- Eye cancer (3.3%).
- Adrenal cancer (2.6%).
- Liver cancer (2.3%).

### Cause:

The cause of childhood cancer is still unknown, but in some cases cancer develops due to genetic abnormalities.



#### Symptoms:

The symptoms depend on the type of cancer, its stage, and its effect on other parts of the child's body.

### Diagnosis:

- Laboratory tests, including blood and urine tests.
- Ultrasound scans
- X-ray scans
- MRI scans
- Biopsy.

The purpose of the diagnosis is to detect cancer, determine its type, as well as where it has spread (stage).

### Childhood Cancer Treatment:

Childhood cancers are not always treated like adult cancers. The types of treatments that can be administered to a child depend on the cancer's type and stage. Common treatments include:

- Surgery.
- Chemotherapy.
- Radiation therapy.
- Stem cell and bone marrow transplant.

Doctors may give the child one or more of these treatments. The side effects of each type of treatment should be discussed with the doctor.

# Surgery:

The surgical treatment option cannot be given to children suffering from leukemia or lymphoma, because these cancers pass through all parts of the body, and it is difficult to operate on a specific area.

# Chemotherapy:

Chemotherapy is used to eliminate cancer cells in the body. This treatment can be administered to children suffering from cancer either intravenously or via oral tablets, or by intrathecal administration via an injection into the cerebrospinal fluid. The duration of chemotherapy depends on the cancer's type, stage, and how well the child's body is responding to the treatment.



## **♣** Radiation therapy:

Radiation therapy is one of the most common treatments used in the fight against cancer. This treatment that uses high-energy rays (such as x-rays) to kill cancer cells and shrink tumors. Many types of childhood cancers are treated with radiation therapy as well as chemotherapy or surgery.

### **♣** Bone marrow transplant:

- Some types of cancer may require a bone marrow transplant, especially the type of cancer that affects the function of blood cells.
- It is sometimes used to treat cancer that do not affect blood cells, because it allows doctors to administer high doses of chemotherapy.

Diagnosing and treating cancer in children could take a very long time, and these treatments may have many short and long-term side effects, but thanks to advances in medicine, many children suffering from cancer successfully finish their treatment, and continue to grow like any other child.

### **Guidance for Parents:**

- The main goal is to treat the child, even if the treatment results in some undesirable side effects.
- There are many medications that can help make the child more comfortable when taking certain treatments.
- Parents should make sure their child understands some basic facts about his disease and what to expect from the treatment.
- Parents should involve their child in the discussion about the treatment by using a simple language in order to prevent fear and misunderstanding.
- Parents should explain to the child that cancer is not contagious, and that it cannot be transmitted to another person.
- Parents should answer all of the child's answers frankly and have ongoing conversations with him about his disease, because children often use their imagination to provide answers to unanswered questions, which may increase their fears.
- Lying to the child will only lead to ruining his trust in his parents.



It is essential to help the child suffering from cancer cope with the different changes he might experience:

During treatment, many changes may be introduced into the child's life, including:

### Appearance Changes:

Children may be overly sensitive about their appearance and how others see them, so it might be useful to try some of the following ways to help the child accept these changes, including:

- The child should be prepared for hair loss if it is one of the side effects of the treatment, and it is advisable to allow the child to choose a cover, scarf, or wig early on in the process.
- Some treatments may cause loss or weight gain, and in that case a nutritionist should be consulted to see what can be done to prepare for these physical changes.
- It is recommended to go shopping with the child and allow him to choose the clothing that he prefers, which may help to raise his spirits.

### Emotional Changes:

Children who suffer from cancer may sometimes feel anxious and sad, so it is important to help them deal with such difficult emotions:

- It is important to find ways to keep the child engaged and entertained.
- It is advisable to make sure that the child stays in contact with his friends.
- Parents should try to stay as calm as possible, and they should avoid hiding their feelings because children can sense such changes.
- It is important to keep track of the child's changing emotional state, although it is normal for the child to feel upset or sad, however if the child stays in that emotional state for a long time, then it may be a sign of depression.

#### School:

Most children with cancer are absent from school during treatment, while some are able to go to school from time to time. Here are some ways to make sure the child receives the proper academic support he needs during treatment:

- Parents should consult their child's doctor about his academic status, to see how the treatment can affect the child's performance level and ability to do schoolwork.
- Parents should constantly update the school about any developments in the child's health.



#### After Treatment:

- It is essential to follow up with the doctor every few months.
- Scheduled follow-up appointments should not be missed.
- Regular scans and tests must be conducted to make sure the cancer does not return.
- Some cancer treatments can have long-term side effects, so the doctor must be visited even when the child is older.

# **Clinical Health Education Department**

For further questions kindly contact us via email: Hpromotion@moh.gov.sa

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