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Ependymoma - Childhood - Treatment Options [1]

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ON THIS PAGE: You will learn about the different ways doctors use to treat children with ependymoma. To see other pages, use the menu on the side of your screen.

In general, cancer in children is uncommon, so it can be hard for doctors to plan treatments unless they know what has been most effective in other children. That?s why more than 60% of children with cancer are treated as part of a clinical trial. Clinical trials [3] are research studies that compare standard treatments (the best proven treatments available) to newer treatments that may be more effective. Studying new treatments involves careful monitoring using scientific methods, and all participants are followed closely to track their health and progress.

To take advantage of these newer treatments, all children with cancer should be treated at a specialized cancer center. Doctors at these centers have extensive experience in treating children with cancer and have access to the latest research. A doctor who specializes in treating children with cancer is called a pediatric oncologist. In many cases, a team of doctors works with a child and the family to provide care; this is called a multidisciplinary team [4]. Pediatric cancer centers often have extra support services for children and their families, such as child life specialists, nutritionists, physical and occupational therapists, social workers, and counselors. Special activities and programs to help your child and family cope may also be available.

Descriptions of the most common treatment options for childhood ependymoma are below. Treatment options and recommendations depend on several factors, including the type and stage of cancer, possible side effects, the family?s preferences, and the child?s overall health. Take time to learn about your child?s treatment options and be sure to ask questions about things that are unclear. Also, talk about the goals of each treatment with your child?s doctor and what your child can expect while receiving the treatment. Learn more about making treatment decisions [5].

Surgery

Surgery is the removal of the tumor and surrounding tissue during an operation. A neurosurgeon is a doctor who specializes in treating a tumor in the brain or spine with surgery. Surgery is usually the first treatment for ependymoma. It is also used to diagnose ependymoma, using a surgical biopsy (see Diagnosis [6]). The goal of surgery is to remove as much of the tumor as possible.

Surgery to the brain requires the removal of part of the skull, a procedure called a craniotomy. After the surgeon removes the tumor, the patient?s own bone will be used to cover the opening in the skull. There have been rapid advances in surgery for brain tumors, including the use of cortical mapping (which allows doctors to identify certain areas of the brain that control the senses, language, and motor skills) and better imaging tests to give surgeons more tools to plan and perform the surgery. Sometimes, surgery cannot be performed because the tumor is located in a place that the surgeon cannot reach or is near a vital structure; these tumors are called inoperable. If the tumor is inoperable, the doctor will recommend other treatment options.

After surgery, the doctor will create a treatment plan based on the following criteria:

- The amount of tumor removed
- Your child?s age
- Whether there are metastases (disease spread)

Side effects from surgery for ependymoma can vary, and you are encouraged to talk with the doctor about possible short-term and long-term side effects [7] in detail. Learn more about surgery [8].

Radiation therapy

Radiation therapy is the use of high-energy x-rays or other particles to kill cancer cells. A doctor who specializes in giving radiation therapy to treat cancer is called a radiation oncologist. The most common type of radiation treatment is called external-beam radiation therapy, which is radiation given from a machine outside the body. When radiation treatment is given using implants, it is called internal radiation therapy or brachytherapy. A radiation therapy regimen (schedule) usually consists of a specific number of treatments given over a set period of time.

Radiation therapy may be used after surgery to treat ependymoma. If the tumor has not spread, radiation therapy is directed at the tumor. If the tumor has spread, radiation therapy may treat the whole brain and the spine. It may also be used to treat a tumor that cannot be treated with surgery. While radiation therapy is not the standard treatment for children younger than three years old, there are clinical trials evaluating its usefulness for children with ependymoma in this age range.

Side effects from radiation therapy may include fatigue, mild skin reactions, upset stomach, and loose bowel movements. Most side effects go away soon after treatment is finished. Learn more about radiation therapy [9].

Chemotherapy

Chemotherapy is the use of drugs to kill cancer cells, usually by stopping the cancer cells? ability to grow and divide. Systemic chemotherapy is delivered through the bloodstream to reach cancer cells throughout the body. Chemotherapy is given by a medical oncologist, a doctor who specializes in treating cancer with medication. A chemotherapy regimen (schedule) usually consists of a specific number of cycles given over a set period of time. A patient may receive one drug at a time or combinations of different drugs at the same time.

Chemotherapy alone is often not effective to treat ependymoma, but it may be beneficial if used in combination with other treatments. Clinical trials combining radiation therapy and chemotherapy after surgery are underway. The use of chemotherapy has also helped surgeons perform additional surgery to destroy any part of a tumor that could not be removed during the original surgery (see Latest Research [10]).

The side effects of chemotherapy depend on the individual and the dose used, but they can include fatigue, risk of infection, nausea and vomiting, hair loss, loss of appetite, and diarrhea. These side effects usually go away once treatment is finished.

Learn more about chemotherapy [11] and preparing for treatment [12]. The medications used to treat cancer are continually being evaluated. Talking with your child?s doctor is often the best way to learn about the medications prescribed for your child, their purpose, and their potential side effects or interactions with other medications. Learn more about your child?s prescriptions by using searchable drug databases [13].

Getting care for symptoms and side effects

Cancer and its treatment often cause side effects. In addition to treatment to slow, stop, or eliminate the tumor, an important part of care is relieving a child?s symptoms and side effects. This approach is called palliative or supportive care, and it includes supporting your child with his or her physical, emotional, and social needs.

Palliative care can help a child at any stage of illness. Children often receive treatment for the tumor and treatment to ease side effects at the same time. In fact, people who receive both often have less severe symptoms, better quality of life, and report they are more satisfied with treatment.

Palliative treatments vary widely and often include medication, nutritional changes, relaxation techniques, and other therapies. Your child may also receive palliative treatments similar to those meant to eliminate the tumor, such as surgery, radiation therapy, and chemotherapy. Talk with your child?s doctor about the goals of each treatment in the treatment plan.

Before treatment begins, talk with your child?s health care team about the possible side effects of the specific treatment plan and supportive care options. And during and after treatment, be sure to tell your child?s doctor or another health care team member if your child is experiencing a problem so it is addressed as quickly as possible. Learn more about palliative care [14].

Recurrent ependymoma

A remission is when the tumor cannot be detected in the body and there are no symptoms. This may also be called ?no evidence of disease? or NED.

A remission can be temporary or permanent. This uncertainty leads to many survivors and their families feeling worried or anxious that the tumor will come back. While many remissions are permanent, it?s important to talk with the doctor about the possibility of the tumor returning. Understanding the risk of recurrence and the treatment options may help people feel more prepared if the tumor does return. Learn more about coping with the fear of recurrence [15].

If the tumor does return after the original treatment, it is called a recurrent tumor. It may come back in the same place (called a local recurrence), nearby (regional recurrence), or in another place (distant recurrence).

When this occurs, a cycle of testing will begin again to learn as much as possible about the recurrence, including whether the tumor?s stage and grade have changed. After testing is done, you and your child?s doctor will talk about the treatment options. Often the treatment plan will include the therapies described above (such as surgery, radiation therapy, and chemotherapy) but they may be used in a different combination or given at a different pace. Your child?s doctor may also suggest clinical trials that are studying new ways to treat this type of recurrent tumor.

If your child is diagnosed with a recurrence, you and your family may experience emotions such as disbelief or fear. You are encouraged to talk with your child?s health care team about these feelings and ask about support services to help your family cope. Learn more about dealing with a recurrence [16].

If treatment fails

Although treatment is successful for the majority of children with cancer, sometimes it is not. If a child?s tumor cannot be cured or controlled, this is called advanced or terminal cancer. This diagnosis is stressful, and it may be difficult to discuss. However, it is important to have open and honest conversations with your child?s doctor and health care team to express your family?s feelings, preferences, and concerns. The health care team is there to help, and many team members have special skills, experience, and knowledge to support patients and their families.

Parents or guardians are encouraged to think about where the child would be most comfortable: at home, in a home-like setting elsewhere, in the hospital, or in a hospice environment. Hospice care is a type of palliative care for people who are expected to live less than six months. It is designed to provide the best possible quality of life for people who are near the end of life. Nursing care and special equipment can make staying at home a workable alternative for many families. Some children may be happier if they can arrange to attend school part-time or keep up other activities and social connections. The child?s health care team can help parents or guardians decide on an appropriate level of activity. Making sure a child is physically comfortable and free from pain is extremely important as part of end-of-life care. Learn more about caring for a terminally ill child [17] and advanced care planning [18].

The death of a child is an enormous tragedy, and families may need support to help them cope with the loss. Pediatric cancer centers often have professional staff and support groups to help

with the process of grieving. Learn more on grieving the loss of a child [19].

The next section helps explain clinical trials, which are research studies. Use the menu on the side of your screen to select About Clinical Trials, or you can select another section, to continue reading this guide.

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