Printed July 5, 2015 from http://www.cancer.net/cancer-types/neuroendocrine-tumor/treatment-options

Neuroendocrine Tumor - Treatment Options [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 04/2014

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

This section outlines treatments that are the standard of care (the best proven treatments available) for this specific type of tumor. When making treatment plan decisions, patients are also encouraged to consider clinical trials as an option. A clinical trial is a research study to test a new approach to treatment to evaluate whether it is safe, effective, and possibly better than the standard treatment. Clinical trials may test such approaches as a new drug, a new combination of standard treatments, or new doses of current therapies. Your doctor can help you review all treatment options. For more information, see the Clinical Trials [3] and Latest Research [4] sections.

Treatment overview

In caring for a person with a tumor, different types of doctors often work together to create a patient?s overall treatment plan that combines different types of treatments. This is called a multidisciplinary team [5].

Descriptions of the most common treatment options for a neuroendocrine tumor are listed below. Treatment options and recommendations depend on several factors, including the type and stage of neuroendocrine tumor, possible side effects, and the patient?s preferences and overall health. Your care plan may also include treatment for symptoms and side effects, an important part of cancer care. Take time to learn about your treatment options and be sure to ask questions about things that are unclear. Also, talk about the goals of each treatment with your doctor and what you can expect while receiving the treatment. Learn more about making treatment decisions [6].

Surgery

Surgery is the main treatment for both pheochromocytoma and Merkel cell cancer. During surgery, the doctor removes the tumor along with a small border of healthy tissue around the tumor, called a margin. A surgical oncologist is a doctor who specializes in treating cancer using surgery.

For pheochromocytoma, laparoscopic surgery may be performed. Laparoscopic surgery is a less

invasive type of surgery that uses three or four small incisions instead of one large incision. A thin, lighted tube called a laparoscope that is attached to a video camera is inserted through one opening to guide the surgeon. Surgical instruments are inserted through the other openings to perform the surgery.

If removing the tumor using surgery is not possible, it is called an inoperable tumor, and the doctor will recommend another type of treatment.

Before any type of surgery, talk with your doctor about the possible side effects and how they will be managed. Learn more about cancer surgery [7].

Radiation therapy

Radiation therapy is the use of high-energy x-rays or other particles to destroy 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 is generally used when a neuroendocrine tumor has spread or is in a location that makes surgery difficult or impossible.

Side effects of 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 [8].

Chemotherapy

Chemotherapy is the use of drugs to destroy cancer cells, usually by stopping the cancer cells? ability to grow and divide. Chemotherapy is given by a medical oncologist, a doctor who specializes in treating cancer with medication.

Systemic chemotherapy is delivered through the bloodstream to reach cancer cells throughout the body. Common ways to give chemotherapy include an intravenous (IV) tube placed into a vein using a needle or in a pill or capsule that is swallowed (orally). A chemotherapy regimen 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. There are many clinical trials underway to study new drugs for neuroendocrine tumors. Learn more about these medications in the Latest Research [4] section.

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. Recent studies have found that a combination of doxorubicin (Adriamycin), fluorouracil (Adrucil, 5-FU), and streptozocin (Zanosar) can reduce the symptoms of cancer and side effects of cancer treatment for some patients. Learn more about chemotherapy [9] and preparing for treatment [10].

Targeted therapy

Targeted therapy is a treatment that targets the cancer?s specific genes, proteins, or the tissue environment that contributes to cancer growth and survival. This type of treatment blocks the growth and spread of cancer cells while limiting damage to healthy cells.

Recent studies show that not all tumors have the same targets. To find the most effective treatment, your doctor may run tests to identify the genes, proteins, and other factors in your tumor. As a result, doctors can better match each patient with the most effective treatment whenever possible. In addition, many research studies are taking place now to find out more about specific molecular targets and new treatments directed at them. Learn more about targeted treatments [11].

Two targeted therapies, everolimus (Afinitor) and sunitinib (Sutent), have demonstrated some benefit for patients with pancreatic neuroendocrine tumors. Talk with your doctor about possible side effects of these medications and how they can be managed.

Other medications

Often, pheochromocytoma is treated with surgery and alpha-adrenergic blockers, which are medicines that are most commonly used to lower blood pressure. Beta-blockers may be used to control a fast or irregular pulse.

The medications used to treat neuroendocrine tumors are continually being evaluated. Talking with your doctor is often the best way to learn about the medications prescribed for you, their purpose, and their potential side effects or interactions with other medications. Learn more about your prescriptions by using searchable drug databases [12].

Getting care for symptoms and side effects

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

Palliative care can help a person at any stage of illness. People often receive treatment for the tumor and treatment to ease side effects at the same time. In fact, patients 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. You may also receive palliative treatments similar to those meant to eliminate the tumor, such as chemotherapy or surgery. Talk with your doctor about the goals of each treatment in the treatment plan.

Before treatment begins, talk with your health care team about the possible side effects of your specific treatment plan and supportive care options. And during and after treatment, be sure to tell your doctor or another health care team member if you are experiencing a problem so it is

addressed as quickly as possible. Learn more about palliative care [13].

Metastatic neuroendocrine tumors

If a cancerous tumor has spread to another location in the body, it is called metastatic cancer.

Patients with this diagnosis are encouraged to talk with doctors who are experienced in treating this stage of cancer, because there can be different opinions about the best treatment plan. Learn more about seeking a second opinion [14] before starting treatment, so you are comfortable with the treatment plan chosen. This discussion may include clinical trials [3].

Your health care team may recommend a treatment plan that includes surgery, radiation therapy, chemotherapy, and/or targeted therapy. Supportive care will also be important to help relieve symptoms and side effects.

For most patients, a diagnosis of metastatic cancer is very stressful and, at times, difficult to bear. Patients and their families are encouraged to talk about the way they are feeling with doctors, nurses, social workers, or other members of the health care team. It may also be helpful to talk with other patients, including through a support group.

Remission and the chance of recurrence

A remission is when a 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 feeling worried or anxious that the tumor will come back. While many remissions are permanent, it?s important to talk with your doctor about the possibility of the tumor returning. Understanding the risk of recurrence and the treatment options may help you feel more prepared if the tumor does return. Learn more about coping with the fear of recurrence [15].

If a neuroendocrine 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 has changed. After testing is done, you and your doctor will talk about your 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 doctor may also suggest clinical trials that are studying new ways to treat this type of recurrent cancer.

People with recurrent cancer often experience emotions such as disbelief or fear. Patients are encouraged to talk with their health care team about these feelings and ask about support services to help them cope. Learn more about dealing with cancer recurrence [16].

If treatment fails

Recovery from a neuroendocrine tumor is not always possible. If treatment is not successful, the

disease may be called advanced or terminal disease.

This diagnosis is stressful, and it may be difficult to discuss. However, it is important to have open and honest conversations with your doctor and health care team to express your 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. Making sure a person is physically comfortable and free from pain is extremely important.

Patients who have advanced disease and who are expected to live less than six months may want to consider a type of palliative care called hospice care. Hospice care is designed to provide the best possible quality of life for people who are near the end of life. You and your family are encouraged to think about where you would be most comfortable: at home, in the hospital, or in a hospice environment. Nursing care and special equipment can make staying at home a workable alternative for many families. Learn more about advanced cancer care planning [17].

After the death of a loved one, many people need support to help them cope with the loss. Learn more about grief and loss [18].

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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