NeuroEndocrine Cancer Australia

Radiation Therapy

Radiation Therapy for Neuroendocrine Tumours (NETS)

Radiation Therapy is the use of targeted radiation to kill or damage cancer cells with the aim of limiting how much they can grow, multiply or spread. Treatment aims to only affect the part of the body where the radiation is targeted. It is not commonly used to treat Neuroendocrine Tumours (NETs), however, can be very effective if required, especially when using advanced techniques such as Stereotactic Body Radiotherapy (SBRT).

Radiation Therapy can also be used when the cancer has spread (metastasised) to areas such as the bones or brain, to help relieve symptoms such as pain or bleeding. Your healthcare team will consider your personal needs to plan the type, and amount of radiation, and when and how it is given. Most people receive other treatments before radiation therapy.

External beam radiation therapy (EBRT)

During external beam radiation therapy, a machine directs radiation through the skin to the tumour and some of the tissue around it. The process is similar to having an x-ray, and each treatment takes around 15 minutes. You will lie on a treatment table underneath a machine that moves around your body. You will not see or feel the radiation, although the machine can make noise as it moves. The number of treatments will depend on the situation, ranging from a single treatment to relieve symptoms, or longer courses for “conventional” treatment.

Stereotactic Body Radiotherapy (SBRT)

This technique differs from other external beam radiation therapy as it involves the delivery of higher doses of radiation to the cancer. These higher doses are given to the patient from X-ray beams directed from outside the body using a small number of treatments (also called fractions). Typically, one to five treatments are used over a few days. The delivery technique is extremely precise which is what the term 'stereotactic' refers to.

Side effects

Side effects can happen with any type of treatment for NETs, but everyone's experience is different. In the majority of cases, radiation is generally well tolerated but some people can experience side effects depending on how close the cancer is to surrounding structures.

During radiation therapy, the healthcare team tries to protect healthy cells in the treatment area as much as possible.

If you develop side effects, they can happen any time, ranging from during treatment, immediately after, or a few days, weeks or years after radiation therapy. Sometimes late side effects develop months or years after radiation therapy. Most side effects go away on their own or can be treated, but some side effects may last a long time or become permanent.

Side effects of radiation therapy will depend mainly on the type of radiation used, the treatment schedule, and the area being treated. Your treatment team will give you detailed information about things you can do to prevent and manage side effects. It is very important that you follow these instructions carefully.

If side effects do occur, some of the more common side effects of radiation therapy used for NETs include:

General side effects:

- Fatigue

Side effects *(continued)*

Side effects specific to the area being treated:

- Skin problems, including redness and irritation, most often from external beam radiation therapy
- Hair loss (this is usually temporary, with hair starting to grow back a couple of months following treatment)
- Nausea and vomiting if the abdomen is in the treatment area
- Diarrhoea, urinary issues and vaginal dryness if the treatment area includes the pelvis
- Low blood cell counts (bone marrow suppression) if the treatment includes a significant area of bone

Tell your healthcare team if you have these side effects or others you think might be from radiation therapy. The sooner you tell them of any problems, the sooner they can suggest ways to help you deal with them.

An excellent Australian website to find more information about Radiation Therapy is **www.targetingcancer.com.au**

This website has information about Radiation Therapy and there is a patient pathway video (about 5 minutes) that explains the pathway that a patient will go through when being treated using Radiation Therapy.

This video is found in the “Talking to your Doctor “section of the website. There are a number of other short videos in the “our stories” section that you might find helpful.

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neuroendocrine.org.au