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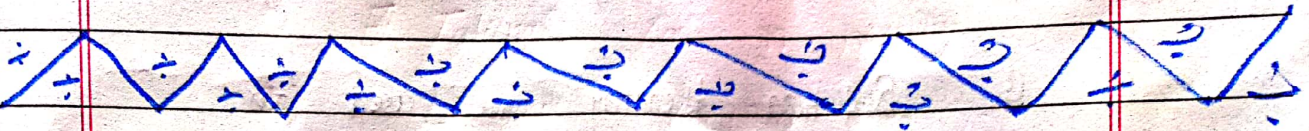
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Azmat



Q1 Explain when a Patient will be needed radiation therapy?

Ans

Radiation therapy

Also called Radiotherapy.

“The radiotherapy, high-energy rays are often used to damage cancer cells and stop them from develop and dividing.

↳ The specialist of the radiation treatment of cancer is known a radiation oncologist.

↳ ~~Radiation~~ Radiation therapy is the treatment of disease of radiation (such as X-rays).

↳ Radio active substance of radiation therapy are, such as a radioactive iodine

take place in blood to kill cancer cells.

↳ Radiation therapy is used for the treatment and to kill tumor.

↳ Patient will be needed radiation therapy.

↳ Radiation therapy are used for the diagnosis, such as Interventional Radiology (IR), ~~and~~ Nuclear Medicine, ultrasound, PET Scan etc.

↳ The radiation therapy are used for the damaged cancer cell.

↳ Radiation therapy are sometime damage normal tissue, such as reproductive organ (testicle and ovaries).

↳ Radiation therapy advise by the radiation oncologist depends on more factors, involved, such as

↳ Size of cancer.

↳ Types of cancer

↳ Location of cancer.

↳ Travel medical history of cancer

Treatment, and Patient age of the cancer.

Types of Radiation therapy.

↳ The two ways of the radiation therapy.

- 1) Internal radiation therapy.
- 2) External radiation therapy.

↳ These types of Radiation therapy are used for the treatment will depend on the size, type of location of cancers.

Uses of radiation therapy.

o Uses of treatment of tumors.

↳ Palliative treatment.

↳ uses to the treatment of tumors.

↳ Curative intent.

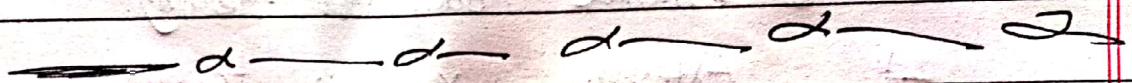
= = The cut the tumors.

↳ Radiation therapy are used surgery and chemotherapy.

↳ To reduce Symptoms.

↳ Shrink tumour affecting, characteristic of life, such as Lung tumour that is causing dyspnea.

↳ The reduce the size of tumour that will decrease the pain.



Q2:

Short notes of the following.

(A) Image Guided Radiation Therapy (IGRT).

↳ It is also called IGRT.

↳ Three-dimensional Imaged.

↳ It is the type of cancer treatment.

↳ It is the Imaging^{scan} uses such

as CT scan, PET scan, X-ray,

Nuclear medicine etc.

↳ IGRT is used to treat tumours in in areas of the body that move such as Lung.

↳ IGRT are therapeutic uses.

important

(B) Tomotherapy

↳ Tomotherapy is a type of Image-Guided IMRT.

↳ Tomotherapy machines can take CT Images of the Patient's tumor instant before treatment ~~so~~ Parts, to allow change tumor target.

↳ Tomotherapy is the 3-dimensional (3-D) Image of the tumor is taken.

Tomotherapy use.

- Safer Radiation -
- Maximum clinical Benefit.
- Quicker Recovery.
- Change targeting.

(C) Intensity modulated Radiation therapy.

↳ Intensity modulated Radiation therapy

(IMRT) is a type of conformal radiotherapy.

↳ IMRT is an advanced type of radiation ~~treatment~~ ~~cancer~~ therapy used to treatment Cancer and noncancerous tumors.

(6)

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↳ It is used Hundreds of tiny radiation beam - shape devices.

↳ Collimators can get a single dose of radiation.

↳ IMRT is an advanced from 3DCRT.

↳ IMRT is Better Preservation of normal structures.

↳ It is the Better Clinical results.

↳ Stereotactic Radiosurgery.

↳ It is also called Cyberknife.

↳ It can used to treat only benign tumors.

↳ It is also called whole brain radiation therapy.

↳ It is used to small tumors.

↳ It is the non-surgical radiation therapy uses to the treatment to the functional abnormalities of the brain.

↳ It is the boom of high-Power energy on a small area of the body.

portant

(E) Proton therapy

- ↳ It is a type of radiation therapy.
- ↳ Proton therapy also called Proton beam therapy.
- ↳ Proton therapy is a high energy, protons can damage cancer cells.
- ↳ The Proton is a positive charged particle.
- ↳ Proton therapy is the medical procedures, is a type of Particle therapy that use a beam of protons to irradiate diseased of the tissue.
- ↳ Proton is the positive charge.
- ↳ Proton therapy is a type of radiation used to the treat cancers.

Q3

What are the Potential side effects of radiation therapy?

Ans

↳ Potential side effects of radiation therapy.

Acute side effect,

Nausea and vomiting.

↳ Radiation therapy can cause both acute and chronic side effect.

↳ Chronic side effects occur on months, or even years after the end stage of the treatment.

↳ The Acute side effect occurs during treatment.

↳ Acute side effect may include skin irritation, salivary gland damage, hair loss.

↳ ~~The~~ ~~side~~ ~~effect~~

↳ Most acute side effect disappears after treatment ends, though can be permanent.

important

↳ The drug amifostine can help protect the salivary glands from

radiation damage.

- ↳ This drug also called radioprotector.
- ↳ Radiation therapy can not only kill or stop growth of cancer cells.

↳ Acute side effect of radiation therapy

- o Mucositis
- o Anorexia
- o Nausea
- o Malaise
- o Alopecia / Epilation.
- o Erythema
- o Pink coloration.
- o mild edema

Chronic effect of radiation therapy.

- o Pigmentation changes
- o Hair Loss.
- o Atrophy
- o Ulceration.
- o Skin Ischemia.
- o Bone Necrosis, Fracture

Mouth - Xerostomia & ulceration

Lung - Fibrosis

Heart - Cardiomyopathy

Gonads - menopause -

↳ Chemotherapy drugs, Genetic Risk
factor, life style factor can
also increase the risk of
Acute side effect.

↳ Radiation therapy can not only
kill or stop growth of cancer
cells.

The End's