Radiation therapy reduce the pain

Radiation therapy or ‘ Radiotherapy’ is the use of high-energy waves, such as X-rays, gamma rays, etc, for destroying cancerous cells in the body. They could be utilized to treat the cancer, reduce the size of the tumor or reduce the symptoms associated with the cancer. The waves utilized in radiation therapy would enter the body and cause destruction of the cancerous cells present by damaging the genetic material. As these cells are now having a degenerated genetic material, they are unable to multiply and divide further.

In this way, the cancer tumor can be stopped from growing further. Radiation therapy can also be utilized to reduce the size of the tumor so that the symptoms associated with the cancer can be reduced. Radiation therapy invariable would be attacking the normal cells present in the body and causing some amount of damage. However, as these cells contain a normal genetic material, they are more likely to multiply and divide later. Radiation therapy can be performed alone or in combination with other therapies such as surgery, chemotherapy, biological therapy, etc.

The radiation therapy can be delivered by an external source (teletherapy) or by a source implanted within the body (Brach therapy). Radiation utilized to treat symptoms is usually known as ‘ palliative radiotherapy’. It is usually utilized to treat the secondary tumors and teletherapy is the mode usually used (NCI, 2004). Radiotherapy can be utilized in several instances to treat cancer and reduce the symptoms. In the case of using radiotherapy for reducing pain, it can be performed for several reasons.

Radiotherapy can be utilized in the case of bone cancer in order to reduce the size of the tumor. Once the size of the tumor has been reduced (as the

cancerous cells are destroyed), the mobility of the bone would improve and pain would reduce. Also, once the tumor has been destroyed by the high-energy waves, new bone would be formed in place, and this could help the bone to become stronger and reduce the risk of pathological fractures. In the case of bone cancers, radiotherapy can be administered as a single dose or multiple doses.

It is usually administered in the affected area. Radiotherapy can also be administered to various other secondary sites in the body, in order to reduce the risk of metastasis lesions from developing. These metastatic tumors could develop in various sites of the body, thus causing pain and several other symptoms. Radiotherapy would help to reduce the size of these tumors and thus help in preventing further destruction of the bone (NHS, 2007). Radiation therapy is one of the fastest and the most effective ways of reducing bone pain during cancer treatment.

However, this depends on several factors including patient’s age, sex and health status, and the type of cancer. Radiotherapy is utilized to reduce the symptoms especially in those conditions in which the cancer spreads to the bones (such as breast cancer, lung cancer, intestinal cancer and prostate cancer). Radiotherapy can also be utilized to prevent new tumors from developing. It is effective in treating the pain in about 30 % of the patients within a 30-day period. In about 40 % of the individuals, the pain is reduced to about 50% (Cancer Research UK, 2007).

Radiotherapy can also be utilized to treat ulcerative type of cancers. These types of tumors grow and develop beneath the skin or the mucous

membrane and erupt as ulcers or erosions on the surface of the skin or mucous membrane, causing several symptoms such as bleeding, pain, discomfort, etc. It can be seen in several types of cancers including malignant melanoma. Ulcerative cancer type of lesions can develop in several parts of the body including the skin, tongue, oral mucous membrane, vagina, rectum, bladder, etc.

Radiotherapy would help to destroy the cancerous cells and thus shrink the size of the tumor. The bleeding and the discharge rate from the ulcer would be reduced. The individual would feel more comfortable. Adequate amount of dressing and bandaging of the wound, to help in the healing, should follow radiotherapy. Radiotherapy to treat ulcers is usually performed in sessions, which last for 2 weeks. The side effects following radiotherapy to treat an ulcer are usually mild (and include redness of the area and dryness of the skin) (Cancer Research UK, 2007).

References

http://www. cancerhelp. org. uk/help/default. asp? page= 16743

http://www. cancerhelp. org. uk/help/default. asp? page= 16748

http://www. cancer. gov/cancertopics/factsheet/Therapy/radiation