FAQ for Radiation Therapy

放射線治療常見疑慮澄清(英文)

" Radiation therapy " plays a considerably important role in cancer therapy but some patients and family have huge misunderstanding on it. For example, it is misunderstood that the condition will deteriorate after receiving radiation therapy. In fact, many cancer patients believe in the myth of alternative therapy. Most of the patients receive the therapy at the terminal stage of cancer and hence regardless of any type of therapy, it is difficult to prevent the cancer from progressing and hence it is unsupported to blame the illness deterioration on radiation therapy.

This article concludes some common misconception of the public on radiation therapy with explanation and clarification.

- Is radiation therapy only the therapy designed for certain patients of terminal cancer?

  Patients of terminal cancer account only 30% of all patients receiving radiation therapy while most therapies are only the "palliative treatment" that improves the pain conditions in patients. Over half of the patients take radiation therapy based on the likelihood of long-term survival due to therapy.

- Radiation therapy only prolongs the time for patients but could not eradicate the tumor completely like the surgery?

  Radiation therapy has been proved to have long-term curative effect on many malignant tumors (i.e. nasopharyngeal carcinoma and cervical cancer). Moreover many cancers (i.e. head and neck cancers and breast cancer) require surgery and radiation therapy for enhancing the likelihood of cure. In general, giving sufficient radiation dose on the proper area will completely eradicate the tumor.

- Does radiation therapy kill all good and bad cells together?

  Cancer cells are more sensitive to radiation therapy while the repair capacity of normal cells is far better than cancer cells. Hence the daily radiation therapy will not give excess radiation dose to prevent the death of normal cells. Following the increase number of therapies, cancer cells will have more death and be completely be destroyed. Only few of the normal tissue will have cellular injuries and hence patients could recover.

- Are all side effects and sequela of cancer caused by radiation therapy?

  The discomfort in body during radiation therapy is known as "acute side effect," which will gradually disappear after the end of therapy. The physical disorders that occur in few months after the therapy are known as "late sequela." Both only occur in the field of radiation. Usually the radiation dose designed by the physician is based on the empirical results of years of clinical research, which is unlikely to trigger serious sequela on patients. The occurrence of sequela is not always caused by the therapy as the cancer itself contains considerable destruction on normal tissues

- Will patients of the same cancer have the same serious sequela?

  Each patient differs in illness condition and physical condition, and hence the method and total dose of radiation therapy are not always the same. Hence, the sequela on others does not necessarily occur to you. The patients and family should discuss the sequela in details with the physician before receiving the therapy for more understanding and take routine outpatient examination during and after the therapy.

- The tumor does not change much in size after few times of radiation therapy. Does the radiation therapy really work ?

  The speed of reaction of tumor against radiation therapy is related to the proliferation speed of cells. The size of tumor without much change after a few times of therapies does not mean the radiation therapy is ineffective. The physician will evaluate if the therapy is effective when receiving the weekly outpatient examination during the therapy.

- The tumor disappears after few times of radiation therapy and so is it necessary for the patients to complete the radiation therapy planned by the physician?

  Fast tumor reaction to radiation therapy does not suggest that the dose should be reduced. Tumor that could not be seen or touched clinically

could still exist with millions of cancer cells under the microscope, which could relapse under insufficient therapy dose.

- If the tumor has disappeared after surgery, could the patients not receive the radiation therapy?

  The surgery only possibly eradicate the tumor visible by naked eye, however the invasion of malignant tumor is very strong and the previously normal tissue near the tumor could be resided with millions of cancer cells. Hence the patients should follow the judgement and suggestions by professional physicians for post-operative radiation therapy.

- The side effect of radiation therapy makes the body weak so should the patients carry out therapy after they have completely recovered?

  The physical discomfort triggered by side effects could be alleviated by medicine for minor symptoms or the physician will determine if therapy should be suspended in the symptoms are too serious. In general, the patients should continue therapy under the premise that such discomfort is endurable or would not have serious side effect, otherwise the cancer cells will continue to breed when the patients are taking a rest.

- Too much nutrient for cancer patients will make the tumor grow too fast. Should the patients hold restrictive diet while receiving radiation therapy?

  Due to the great strength consumption during radiation therapy, patients should be encouraged to have sufficient and balanced nutrients in order to maintain the sustainability and effect of therapy. If the patients have poor appetite due to the side effect, patients may have to consider using intravenous injection of nutrients or use nasogastric tube to supplement the strength.

- Patients receiving radiation therapy carry radioactive substances and could it have adverse effect on the family or other organs of the patients?

  The external beam radiation therapy in general produces ionizing radioactive substance (mostly consisting of free radicals) will only exist within the radiated field a few seconds during therapy and hence will not affect the health of family or the other organs other than the radiated area of patients.