

Radiotherapy (Pelvis)

I. Introduction

Radiotherapy involves the use of high-energy X-rays or electron beams to destroy the tumour while trying to preserve normal tissues as far as possible. Although X-rays also affect normal cells in the area treated, their ability to recover is usually better than that of tumour cells.

Radiotherapy to the pelvis can be given as the curative primary treatment for cancers in the pelvis, as an adjuvant treatment before or after surgery (to increase the successful rate of surgical removal or reduce rate of cancer recurrence), as a palliative treatment (to relieve local symptoms) or as a form of hormonal treatment (e.g. ovarian irradiation for some breast cancer patients).

II. Procedure

- You will not experience any pain during the treatment procedure.
- Before each session, our staff will make sure that you are in the correct position for treatment. You will then stay in the treatment room alone for a few minutes while radiotherapy is being delivered.
- You will be closely monitored through a closed-circuit television system. You can speak to us using the intercom if necessary.

III. Risks and Side Effects

- Although radiotherapy is an effective treatment for your disease, it can cause short-term and long-term side effects. Our medical and nursing staff will offer appropriate treatment to help you complete the course of radiotherapy.
- Some of the common and potentially severe side effects are discussed below. Each patient reacts differently and may experience none, some, or all of the complications to a varying degree of severity. If other types of treatment such as chemotherapy are given in conjunction with radiotherapy, some of the side effects may be exacerbated. Complications are also more common in patients who have had previous surgery/ radiotherapy in the area being currently treated with radiotherapy.

A. Short-Term Side Effects

These may occur during radiotherapy, but usually disappear several weeks after the completion of treatment.

Common

1. Tiredness, nausea, poor appetite and weight loss.
2. Dryness, redness, irritation and flaking of irradiated skin, similar to sunburn. Part of the skin may ulcerate.
3. Temporary hair loss of irradiated skin.
4. Bowel inflammation causing abdominal cramps and diarrhea.
5. Inflammation of the rectum and anus causing pain, irritation, mucous discharge and sometimes bleeding.
6. Bladder inflammation causing urinary frequency, pain when passing urine and sometimes blood in urine.
7. Patients with haemorrhoids: Irritation or inflammation of haemorrhoids.
8. Female patients: Vaginal discharge, irritation, pain, and sometimes bleeding.
9. Female patients: Disturbance in menses.

Uncommon/Rare Risks with Serious Consequences

1. Swelling of the genital area.
2. Drop in blood counts causing increased risk of infection and bleeding. This usually occurs only in patients where a large area is being treated, and is more common in those who are also receiving chemotherapy.
3. Post-operative radiotherapy may affect wound healing.
4. Severe diarrhea and dehydration that requires hospital admission.
5. Difficulty in passing urine.

B. Long-Term Side Effects

These may occur months or years after radiotherapy and may persist.

Common

1. Dryness, thickening and colour change or irradiated skin.
2. Scarring and stiffness of muscle and soft tissue of area irradiated.
3. Chronic diarrhea, irregular bowel habit or chronic abdominal pain.
4. Contracture of the urinary bladder and frequent urination.
5. Swelling of the genitalia and legs. This is more common in patients who had previous surgery to remove the lymph nodes.
6. Narrowing of anastomosis (connecting sites of surgery).
7. Infertility or sterility.
8. Erectile dysfunction in male patients.
9. Premature menopause in female patients.
10. Dryness and narrowing of the vagina in female patients.

Uncommon/Rare

1. Permanent hair loss in area irradiated.
2. Bowel injury resulting in obstruction, ulceration, perforation, bleeding or poor absorption.
3. Bladder damage causing pain, blood in urine or recurrent infection.
4. Fistula between the bowel or bladder and other organs.
5. Stricture in the ureters, urethra or bladder neck leading to renal failure. The risk is increased in patients who had previous surgery to the area treated.
6. Surgery or stoma may be required to manage severe complications of the bowel and bladder.
7. Severe radiation injury to bone or soft tissue in the treated area causing chronic pain, infection, ulceration and bone fractures. Surgery may be required.
8. Nerve damage causing pain, tingling sensation, loss of sensation and weakness in legs or loss of control of bladder or rectum.

Note:

- Radiation-induced tumours may occur, but this is rare.
- The growth of irradiated areas may be affected in children.
- On rare occasions, patients may develop severe life-threatening complications due to radiotherapy and die.
- It is possible that the intended treatment outcome cannot be achieved, and the disease may not be alleviated or may recur/ progress in the future.
- Despite all precautions, unpredictable and unpreventable adverse outcomes may occur after treatment. Please kindly ensure that you understand the pros and cons of radiotherapy before deciding on undergoing the latter.

IV. Before the Treatment / Preparations Required

1. The treatment plan and radiotherapy schedule depend on the type and location of the tumour, as well as your health condition. Your doctor will discuss the details with you and explain how you can cope with the treatment side effects.
2. Sometimes skin tattooing or a special mould will be required to improve treatment accuracy .
3. Our staff will take written, photographic and radiographic records of your treatment for radiotherapy planning and future reference. These records may be used for research or scientific publications but your confidentiality will be maintained at all times.
4. Avoid applying ointment or cream on the area treated before attending your radiotherapy session. No other preparation is required unless specific instructions have been given by our staff.

Note:

- **Radiotherapy can cause teratogenicity (i.e. lead to abnormal fetal development). During radiotherapy, both male and female patients (if applicable) should use an effective method of contraception.**
- **Radiotherapy may affect the function of your pacemaker. Please let us know if**

you have a cardiac pacemaker.

V. After the Treatment

1. You may feel tired or experience other side effects with radiotherapy. Please consider having a friend or relative accompanying you to the hospital if possible.
2. Our doctors will assess you on a regular basis and take appropriate measures to minimise your side effects.
3. If you feel unwell during the treatment period, please inform our staff.

VI. Follow-up

1. The time taken for recovery varies from person to person, some people can go back to work shortly after the completion of treatment.
2. After completing the whole course of radiotherapy, a follow-up appointment will be arranged to assess your response to treatment and to look out for complications. Please attend your appointment as scheduled.
3. Please ensure that you follow precisely the instructions given to you regarding medications (if applicable).

VII. Remarks

The list of complications is not exhaustive and other unforeseen complications may occasionally occur. The risk of some complications may actually be higher for certain patient groups. For further information, please contact your doctor.