MANAGEMENT OF RADIATION PROCTITIS

Francis Seow-Choen

Head & Senior Consultant Surgeon, Department of Colorectal Surgery, Singapore General Hospital, Singapore

Malignancies of the pelvic organs are often treated with radiotherapy primarily or together with surgery. Thus many patients with carcinoma of the uterine cervix, prostate and even the anorectum are subjected to radiation. Whilst the anti-carcinogenic effect of many of these treatment modalities is good, harmful radiation changes to adjacent organs within the pelvis may severely affect an otherwise successful therapy. Radiation proctitis is a common sequelae of pelvic irradiation and may result, in the most severe forms, in massive haemorrhage, rectal fistula and rectal stenosis. Patients presenting with rectal stenosis and intestinal obstruction need surgery. Similarly patients with radiation induced recto vaginal, recto prostatic or other fistulas lead miserable lives and require surgery. Where surgical excision is not a problem, resection and/or repair under colostomy cover may be the treatment of choice. Often however, recurrent disease or poor anaesthetic risk may require the alternative defunctioning stoma alone. The most common problem however is rectal bleeding. Many of these patients live miserable lives with intractable rectal bleeding and repeated hospitalisation and blood transfusions.

Medical treatment utilising steroids, sulphasalazine, tranexamic acid and sucralfate enemas, in one form or another, are usually prescribed. These drug therapies are commonly used but are seldom useful in decreasing rectal haemorrhage (1). More recently, laser fulguration and argon plasma coagulator has been attempted not only if anal function is sacrificed in some patients. Rectal excision may be exceptionally difficult because of massive pelvic fibrosis or recurrent pelvic malignancy and is fraught with problems. The loss of tissue planes and a tenuous blood supply caused by irradiation exposes the patient to an increased risk of intestinal, ureteric, bladder and vascular injuries and perforations. We have had very little success with the use of the proximal defunctioning stoma and have found that exclusion of the diseased rectum does not prevent further massive rectal haemorrhage.

We have used topical formalin application since September 1991 for haemorrhagic radiation proctitis (1,7,8).

TECHNIQUE OF FORMALIN APPLICATION

Total colonoscopy should be performed in all patients prior to formalin treatment to exclude other causes of rectal bleeding as well as to determine the proximal extent of the radiation damage. No anaesthesia is needed for formalin therapy. Liberal use of lignocaine jelly is useful especially in patients with fissures or piles. The rigid sigmoidoscope is introduced into the rectum with the patient in the left lateral position. The most proximal extent of the lesion is visualised and a gauze soaked in 4% formalin carried on a biopsy forceps introduced and laid in contact with the haemorrhagic surface until bleeding stops. This process is then repeated until the most distant extent of the diseased rectum has been treated. The most distal rectum is more easily treated with a proctoscope. Patients can be discharged immediately after treatment with a prescription for bulk laxatives.

No major complications have been recorded in our series and the only problem has been a worsening of radiation-induced rectal stricture which was easily dilated transanally with good results.

The procedure may be repeated when necessary, although in our experience this was not necessary in the majority of cases.

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Rectal resection with or without restoration of gastrointestinal continuity effectively rids the patient of the diseased bleeding rectum but is associated with a high morbidity and mortality (5). Furthermore, surgery may not be possible in some of these elderly patients with concomitant medical ailments or recurrent pelvic malignancies.

Restoration of gastrointestinal continuity following rectal resection in radiated rectum is associated with an anastomotic leak rate of up to 65% (6). Furthermore, rectal resection may be possible only if anal function is sacrificed in some patients. Rectal excision may be exceptionally difficult because of massive pelvic fibrosis or recurrent pelvic malignancy and is fraught with problems. The loss of tissue planes and a tenuous blood supply caused by irradiation exposes the patient to an increased risk of intestinal, ureteric, bladder and vascular injuries and perforations. We have had very little success with the use of the proximal defunctioning stoma and have found that exclusion of the diseased rectum does not prevent further massive rectal haemorrhage.

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