

Challenges Encountered in Placement of Ostomy Bag for Palliative Care in a Patient with Colorectal Cancer

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Abstract

Fecal fistula develop in patients with cancer associated with difficult management situation, which is often complicated by prior treatment including surgery, radiation therapy, and chemotherapy. Affecting factors such as timing of additional adjuvant therapy or palliative care, technical considerations for operating on irradiated bowel, poor wound healing, increased risk of additional fecal fistula, and decreased likelihood of spontaneous fecal fistula closure all need to be considered in this scenario. Here, the authors focus specifically on the management of fecal fistula associated with cancer and/or radiation-induced injury to the bowel.

Keywords: Excoriation, fecal fistula, ostomy bag

INTRODUCTION

Colorectal cancer (CRC) is the third most common cancer in men and the second most common cancer in women worldwide. Almost 55% of the cases occur in developed countries.^[1] CRC is the cancer of old age and mostly occurs after the fifth decade of life. However, the incidence of CRC is increasing in young age, especially in developing countries, which is mainly contributed by change in lifestyle and food habits.^[1] Surgical resection is the basic treatment in the clinical management of rectal cancer, but given the high risk of recurrence, adjuvant chemotherapy has become part of the standard of care.

CASE REPORT

A 42-year-old female underwent surgery for rectal cancer who now presented to us with the complaints of rectovaginal fistula, adhesive small bowel obstruction (infected mesh), and complex enterocutaneous fistula (ECF). [Figure 1] Exploratory laparotomy done for the drainage of pus, proximal transverse colostomy with ileocolostomy (double barrel), and the infected mesh has been removed. In the postoperative period, the patient had raised daily volume of stomal output of about 1200–1300 ml.

The patient was a follow-up case of laparoscopic appendectomy with right hemicolectomy (appendix adenomatosis) and

sigmoidectomy. Furthermore, she underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy. She had received adjuvant chemotherapy with folinic acid, fluorouracil, and oxaliplatin, radiotherapy, and hyperbaric oxygen therapy.

The patient had a previous surgical scar below the umbilicus and there was pus discharge through the fistulous tract [Figure 2]. Furthermore, the proximal ileum with terminal ileal loops got densely adhered to the lower anterior abdominal wall and urinary bladder. The patient's proximal small bowel was distended and edematous. The bowel walls and terminal ileal loop got adhered densely to the pelvis. The patient was allowed orally with soft diet which she tolerated well and so could gradually progress to normal diet. Stomal output was monitored. Loperamide and injection octreotide were given in view of high stoma output. On inspection of fistula opening, continuous discharge from wound, excoriation of surrounding skin, and increased wound gap was found. Gradually ostomy bag (Coloplast) has applied with ostomy paste (ConvaTec), and DuoDerm extra thin dressing (ConvaTec) was applied. The patient is stable both physically and psychologically.

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Figure 1: Enterocutaneous fistula anterior view



Figure 2: Deep folds on lateral view



Figure 3: Management of deep folds



Figure 4: Complete management of enterocutaneous fistula

In view of palliative care in the current patient, the patient presented to the palliative care department of AIIMS, Jodhpur, with the following problems:

- a. Fecal fistula at the abdomen
- b. Ostomy bag leakage very frequently
- c. Skin excoriation surrounding fecal fistula
- d. Insomnia
- e. Restlessness
- f. Malnourished
- g. Anemia, etc.

In these circumstances, we first cleaned the wound by normal saline and then dried it properly. In the next step, we applied silicon barrier layer around fecal fistula which helped in treating skin excoriation around fecal fistula. In the next step of palliative care, we sealed abdominal folds with strip paste which was shown to provide a good base for ostomy bag over fecal fistula [Figure 3]. Thereafter an ostomy bag had been placed externally along with a hydrocolloid dressing [Figure 4].

RESULTS

The patient presented to the palliative care department with several problems such as fecal fistula at the abdomen, ostomy bag leakage very frequently, skin excoriation surrounding fecal fistula, [Figure 1] insomnia, restlessness, malnourished, anemia,

psychological problems, and problems with communication. Moreover, the patient was received chemotherapy and radiotherapy so that physical and psychological consequences were present in the patient.^[2] For all those problems, the patient was seeking attention of more and more health-care giver where the patient was not satisfied and the patient felt more and more depression; at that time, the patient was tired of doing “doctor’s shopping which means she visited multiple doctors to apply an ostomy bag but the bag was leaking always and she never satisfied with anyone.”^[2] The main reason behind patient problems was bag leakage which caused spreading of stool on the patient’s abdomen; this problem leads to smelling of the patient’s room, and family members of the patient make distance with the patient.

In our palliative department, we looked that the patient’s abdomen had right and left grooves which prevent bag stickiness [Figures 1 and 2]. We filled those grooves with ostomy strip paste which gives good stickiness [Figure 3].^[3] Now, the patient’s all problems had subsided. In our palliative care department, patient received holistic care for all perspectives which include care of stoma bag, minimizing bag

leakage, giving psychological counseling, meeting spiritual needs, and improving communication with family members and other relatives.^[4] All those care leads to good patient satisfaction and the patient felt good.

DISCUSSION

Management of ECF represents one of the most protracted and difficult. Patients who have received radiotherapy to organs in the abdomen or pelvis are at risk for radiation-induced damage to the intestinal microvasculature, which may result in enteritis, strictures, abscess, or fistula. Surgery on irradiated bowel is associated with poor healing, increased risk of ECF, and decreased likelihood of spontaneous ECF closure. ECF has problems in colorectal surgery with substantial morbidity and mortality rates. While the great majority of ECFs are iatrogenic (75%–85%), between 15% and 25% occur spontaneously.^[5] Common causes of iatrogenic ECF are trauma, operations for malignancy associated with extensive adhesiolysis or inflammatory bowel disease.

Wound care is a priority in a malnourished patient. It is quintessential for the patient's quality of life and ability to manage the physical and mental stresses of living with an ECF. Enteric output, especially mucous from the proximal small intestine, will erode the skin in < 3 h.^[6] Low-output fistulas can be treated with a wet to dry dressing or simply a dry gauze. Moderate-output fistulas can be managed with an ostomy appliance with appropriate skin protection around the fistula in the form of adhesive ring, paste, powder, or hydrophilic dressing.^[7] The real challenge is management of high-output fistulas.

Several collection device types exist, such as ostomy appliances, wound managers, pouching systems that can be connected to wall suction, and Negative-pressure wound therapy (NPWT). The Vacuum Assisted Closure is a type of NPWT that is not specifically approved for ECF, with increasing application but currently controversial utility for ECF. The choice and fit of the particular system is instrumental in wound healing and requires the expertise of a wound and ostomy nurse.

Improperly fitted colostomy bag leads to ostomy bag leakage and consequences associated with it. For this reason, the patient cannot eat food properly. Ostomy bag leakage causes skin excoriation surrounding fecal fistula, which might lead to insomnia, restlessness, malnourished, and anemia.

Reasons for leakage of ostomy bag seems to be presence of abdominal skin fold on both sides [Figures 1 and 2], more prominent pubic symphysis [Figure 1], and suture lines at midline (abdomen) which prevent the bag from sticking well [Figure 1]. Our goal was to apply an ostomy bag which stick well and do not leak at least for 3 days. The patient was given

adequate training and knowledge of care of ostomy and the way to improve bag stickiness without any leakage from ostomy bag.

The procedure of filling abdominal skin folds and suture line with strip paste and applying hydrocolloid dressing over ostomy bag had a great result that ostomy bag did not leaked for 24 h [Figures 3 and 4]. Subsequently, by the use of silicon barrier layer cream and the decrease in frequency of changing ostomy bag were lead to relief from excoriation around fecal fistula.

The leakage of ostomy bag above fecal fistula had an impact on psychological health of the patient. Other psychological problems were that the patient knows she was about to die. Furthermore, the patient worried about her children.

In our palliative care department, we first assessed the patient for stress and find that if ostomy bag leakage problem of the patient was cope up, then the patient was very relaxed, and that would have happened because as a part of palliative care when we gave physical care to the patient, then psychologically patient was feeling very good because ostomy leakage problem was solved.

We also gave palliative counseling and psychological support to the patient for psychological well-being that impacts on her psychological health.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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