

## Case Report

# Conservative Management of Necrotic Colostomy in a Fragile Patient Under Palliative Chemotherapy

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**1. Abstract**

Complications with surgically placed ostomies are common. We present our experience treating necrosis and dehiscence in a colostomy by conservative measures avoiding reoperation in a fragile patient. In our patient conservative treatment achieved complete peristomal skin healing and a functional non-stenotic stoma by combining local debridement and wound care measures.

**2. Keywords:** Ostomies; Complications; Colostomy dehiscence; Colostomy necrosis; Conservative management

**3. Introduction**

Complications with surgically placed ostomies are common. Up to 81.1% of patients with an ostomy will present a related complication [1], most of them occurs during first three postoperative weeks and their causes are multifactorial.

Most frequent early complications include: edema (10%), retraction (5%), prolapse (between 2%-10%) and hemorrhage (2%) [2,3]. Long-term complications including parastomal hernia and colostomy prolapse have an incidence about 50% according to last guidelines [4]. Other complications such as poor stoma location, ischemic necrosis, retraction, stenosis, peristomal fistula, small-bowel obstruction, cancer at the stoma site and peristomal abscess are less likely to appear.

Parastomal necrosis and dehiscence are a particularly difficult management problem due to early presentation and failure of conservative measures including wound care. Their incidence is not depreciable, between 7 and 25% in dehiscence and 1-34% in ostomy necrosis and almost 7% patients require surgical re-intervention [5].

Obesity, malnutrition and concomitant chemotherapy administration are well known as risk factors. These situations difficult the organism to carry out cell regeneration and proper tissue healing [6]. Furthermore, it is known that an ostomy created during an emergent surgery considerably increases the risk of presenting related complications [7].

Goals of conservative treatment of stoma complications includes to avoid reoperation, decrease length of hospital stay, promote self-care and get the best device adaptation possible to help skin healing keeping parastomal skin intact [8].

The aim is to present the authors experience treating necrosis and dehiscence in a colostomy by conservative measures avoiding reoperation in a fragile patient.

**4. Case Report**

A 64-year-old female with medical history of smoking who was diagnosed with stage IV rectal cancer 2 months ago, currently following palliative chemotherapy treatment is presented.

She was admitted in emergency room after received last chemotherapy cycle a few hours

ago presenting abdominal pain, hypotension and tachycardia. A CT scan was performed demonstrating rectal perforation around tumor location and the patient was taken to operating room.

The patient presented with fecaloid peritonitis caused by rectal perforation. The tumor was involved into an unapproachable pelvic mass, so surgeons decided to perform an end colostomy in left iliac fossa. During the intervention the patient was hemodynamically unstable, requiring vasoactive amines, intensive fluid therapy, and blood transfusion. After 24 hours in the ICU with satisfactory postoperative evolution, she continued cares in hospital ward.

On the 2nd postoperative day, necrosis appeared in the medial area of the stoma. Following days necrosis progressed reaching the entire mucosa (Figure 1).

At postoperative 6th day, aggressive debridement and lavage of the wound bed was performed, appreciating mucocutaneous dehiscence in the lower third of the stoma without detachment, neither filtering of fecal content into the subcutaneous tissue (Figure 2). This fact allowed to keep a conservative attitude due to the high risk of reoperation attending the patient's fragility.

The patient was discharged on the 16th postoperative day and then, ambulatory follow up was crucial to get excellent results (Figure 3 and 4). Written permission was obtained from the case subject to publish the case details and associated images.

Specialized nursing action was based on isolate the stoma adjusting the device to prevent leaks (using paste and molding resins and many device changes) and infections, protect peristomal skin using barrier films (Brava®, Coloplast®, Minnesota) and stoma dusts and seeking second-intention healing with hydrocolloid hydrofiber dressings (Comfeel® Plus, Coloplast®, Minnesota).

A 3-piece device (Alterna®, Coloplast®, Minnesota) was used to decrease number of changes and the mucocutaneous dehiscence was isolated with hydrocolloid dressing and colostomy paste (Adapt® Paste, Hollister®, Illinois) to get granulation and scarring in order to achieve stoma sealing. Also, a belt-in convex disc was used to avoid sinking it.



**Figure 1:** Almost complete mucosa necrosis on the 4th postoperative day.



**Figure 2:** Local debridement. Mucosa retraction is observed, but is not completely detached.



**Figure 3:** Evolution 15 days after debridement, 6 days after discharge.



**Figure 4:** Evolution 3 weeks after hospital discharge. Almost complete granulation is observed.

## 5. Discussion

Ostomy outcomes depend on initial optimization of placement and wound care and the circumstances under which the stoma is created: emergent vs elective. Unfortunately, even with appropriate technique in the placement of an ostomy, complications are fairly common [9].

Predisposing factors for stoma complication are age, inflammatory bowel disease, body mass index, comorbidity, diabetes, ASA, lack of preoperative care by stoma nurse specialists, and emergent surgery. Many of these factors cannot be controlled by the surgeon but it is important to consider many complications are linked with surgical technique and can be prevented. Outcomes can be improved by optimizing the health of the patient, and if correct diagnosis and proper treatment of ostomy complications are made timely, they can be treated without morbidity and mortality [10].

Conservative treatment is long-lasting and complicated but improved

with the help of ostomy specialist. Highly specialized nursing care is essential for proper prevention of complications and best possible management once established.

In this patient conservative measures achieved complete peristomal skin healing and a functional non-stenotic stoma avoiding surgical re-intervention, with very increased morbidity and mortality in this fragile patient, and substantially improving her quality of life.

## 6. Conclusions

An adequate conservative treatment of stoma dehiscence and necrosis can avoid surgical reoperation and reduce hospital stay.

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