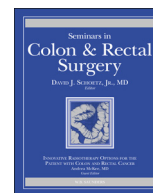




ELSEVIER

Contents lists available at ScienceDirect

Seminars in Colon and Rectal Surgery

journal homepage: www.elsevier.com/locate/yjscrs

Re-operative surgery for intestinal stoma complications

Laurence R. Sands, MD, MBA, FACS, FASCRS^{a,*}, Carlos Sam Morales, MD^{a,b}^a Division of Colon and Rectal Surgery, University of Miami Miller School of Medicine, Miami, FL^b Daughtry Family Department of Surgery, University of Miami Miller School of Medicine, Miami, FL

A B S T R A C T

Intestinal stomas remain a vital tool for the surgeon caring for patients with bowel disease. This article reviews stoma complications that may result in re-operative surgery to revise the stoma. It includes a comprehensive review of early- and late-stoma complications as well as an extensive review of the treatment and prevention of parastomal hernia. Surgical techniques, adherence to basic surgical principles, proper preoperative patient counseling, and pre-operative stoma marking, all of which may prevent many of these complications and enable the surgeon to create the perfect stoma, are also reviewed.

© 2015 Elsevier Inc. All rights reserved.

Introduction

The origins of the diverting stoma can be traced back to Dr. Littre where in 1710 he created a colostomy for a patient with an obstructing colon cancer.¹ While the creation of the colostomy is over 300 years old, it still remains a vital tool for both the general and colorectal surgeon in order to treat a variety of gastrointestinal diseases. Most surgeons would like to believe that stomas are created without issue. However, the literature is replete with many articles describing the morbidity and complications of even the well-constructed stoma. These complications can be divided into physiologic issues, mechanical problems, and anatomic difficulties. When one decides to re-operate on a patient for stoma-related issues, it is best to consider these problems as acute or chronic problems. When grouped together, however, all stoma complications represent a considerable morbidity and mortality. In addition, they pose a large financial burden to our already stressed medical system.

Initial considerations—Stoma marking

Stoma complications such as skin irritation and leakage may arise from a poorly placed stoma. Therefore proper preoperative counseling, education, and site marking may play a key role in preventing some basic stoma issues and re-operation (Figs. 1).

The role of the enterostomal therapist has increased considerably today over the recent past. Many hospitals and medical

institutions now hire an entire team of enterostomal therapists and wound care teams. The counseling they provide reinforces the patients need for the stoma. They are able to answer many questions for the patient about the surgery and the stoma in a non-threatening environment, as many patients will experience a great deal of anxiety related to the creation of a stoma. They may offer reading material, video presentations, and online websites in order to provide the patient with additional information and resources regarding the stoma. The enterostomal therapist may also show the patient the stoma appliances and related products in advance of the surgery, so they have a basic understanding of how these devices work. Another useful resource is to provide the patient the ability to speak to other willing patients in a similar situation who have a stoma so that many of their questions may be appropriately addressed.

All of this is important since stoma counseling has been shown to play a major role in stoma acceptance. This has been confirmed in a study that used multiple regression analysis to show that stoma adjustment was related to learning how to care for the stoma by the patient, the interpersonal relationships that the patient has developed, and better stoma placement. The authors concluded that addressing the psychosocial concerns of the patient should become a part of the care routinely given to stoma patients and preoperative counseling plays a major role in this care.² Another randomized controlled trial demonstrated far greater proficiency with the stoma, shorter hospital stays, and lower overall hospital costs if patients were educated about the stoma in advance of the surgery compared to postoperative stoma teaching.³

One of the most important roles of the enterostomal therapist is preoperative stoma marking. Proper stoma siting reduces stoma

* Corresponding author.

E-mail address: LSands@med.miami.edu (L.R. Sands).



Fig. 1. Stoma irritation.

complications and may reduce the chances that re-operative surgery will be needed for a poorly placed stoma. It may also allow patients to be more independent and to more readily adapt to their new way of life if the stoma is properly placed (Figs. 2).

Stoma siting should be a collaborative effort among the patient, family members, enterostomal therapist, and surgeon in order to achieve a secure stoma appliance devoid of leakage. A leaking stoma can cause severe skin irritation and maceration which leads to a tender raw area that makes the application of a stoma appliance very difficult. This leads to a vicious cycle of poor apposition of the stoma wafer, further leakage, high cost due to over utilization of stoma supplies, and possibly social isolation due to fear of stoma leakage.

In a recent Israeli study of 105 patients half of whom were marked preoperatively by an enterostomal therapist, the quality of life of those patients marked preoperatively for a stoma site was significantly better than those who were not marked even though 43% of the stomas were temporary. In addition, the marked group had a statistically significant lower incidence of stoma complications and greater independence. They concluded that preoperative marking by a qualified enterostomal therapist was advantageous to the patients undergoing surgery that required a stoma.⁴ Other studies have confirmed better patient outcomes as well in those



Fig. 2. Demonstrates a well-formed stoma.

undergoing preoperative assessment and stoma markings by an enterostomal therapist.⁵

Certain factors for proper stoma siting such as body habitus, abdominal wall contour (observed in both the sitting and standing position), abdominal girth, prior abdominal incisions, belt line, skin folds, and bony prominences need to be considered. The stoma should be approximately 5 cm away from other incisions and should optimally lie below the umbilicus. Stoma sites should be modified to avoid scars, skin creases, and other skin disorders. The site must be checked to ensure skin folds or crevices do not interfere with appliance fitting. In the morbidly obese individual, it may be best to place the stoma above the level of the umbilicus due to the large pannus and to facilitate visualization of the stoma for the patient. One should also take into account the patient's flexibility, capabilities, and activity when properly siting a stoma. An adequate stoma location should be placed lateral to the midline and should be exit through the rectus abdominus muscle for additional support and to minimize hernia risk.

Siting a stoma through the umbilicus should, in general, be avoided. However, when a reasonable alternative does not exist, Raza and his colleagues, felt that this was a good option based on their series of 101 patients whereupon only four needed stoma revision. They also noted that none of their patients developed a parastomal hernia or stoma prolapse.⁶ Another study showed that there was excellent cosmesis in infants and children after closure of an umbilical stoma.⁷

The stomas site should be marked and the appliance ideally worn by the patient after being marked for 24–48 h in order to properly test the location selected. Once proper placement is ascertained, the spot is marked with indelible ink. This may be done with a water resistant marker if the marking is done close to the surgery date or it may be done by using ink and then puncturing the skin under the ink thereby forming a permanent tattoo.⁸

Therefore, assessing and teaching patients preoperatively and postoperatively helps them gain confidence and better experiences in self-stoma care reducing the psychological, physical, emotional, social, and sexual problems that may otherwise arise. In this era of high health costs, adequate patient education has also resulted in reduced cost to both the patient and the institution.⁹

Incidence

The incidence of stoma complications has been reported as ranging from 10% to 70%.¹⁰ This range is very broad and in reality the true incidence of stoma-related issues is largely under-reported. In a study conducted at Cook County Hospital that included over 1600 patients with either a colostomy or ileostomy, a complication rate of 34% was reported. Furthermore, these complications were divided into early (< 30 days after surgery) complications and late complications. The early complication rate was much higher at 28% compared to 6% of patients who experienced later complications. Certain factors have been implicated in influencing stoma complications (Table 1).^{11,12}

In the acute setting, body mass index (BMI), emergency surgery, the presence of bowel ischemia found at the time of initial operation and underlying Crohn's disease have all been implicated as the strongest risk factors contributing to early complication rates.^{13,14} Patients with a large BMI tend to have a short mesentery. This, when coupled with a large amount of subcutaneous tissue surrounding the stoma can compromise blood flow causing bowel ischemia and retraction of the stoma. Emergency surgery has always posed a great challenge due to its high morbidity and mortality. In addition, fecal diversion has been regarded as a way out of an abdominal catastrophe. Due to the

Download English Version:

<https://daneshyari.com/en/article/3319205>

Download Persian Version:

<https://daneshyari.com/article/3319205>

[Daneshyari.com](https://daneshyari.com)