Original Article

Frequency of complications of ileostomy: experience of 180 cases at Chandka Medical College Hospital Larkana

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ABSTRACT

Objective

To evaluate the frequency of complications of ileostomy.

Patients and Methods

This descriptive study was conducted on 180 patients at surgical units of Chandka Medical College Hospital, Larkana from August 2004 to February 2008. Patients of ileostomies performed for various pathologies including enteric perforation, intestinal obstruction, abdominal tuberculosis and abdominal trauma were enrolled. Preoperative preparation, investigations, operative findings and post operative complications were noted.

Result

A total of 180 patients were evaluated. Age ranged between 12-65 years (mean 29±13.31years). Male to female ratio was 1:1.22. 93(51.6%) patients were of enteric perforation followed by 49(27.2%) of intestinal obstruction, 20 (11.1%) of abdominal tuberculosis and 18(10%) of abdominal trauma. 72 (40%) patients developed variable complications; of which 38(21.1%) developed skin excoriation, 12(6.6%) retraction, 8(4.4%) stenosis, 8(4.4%)

stomal prolapse, 3(1.6%) peristomal sepsis, 2(1.1%) ischemia and one(0.5%) bleeding. Mortality rate was zero.

Conclusion

Complications of ileostomy are common and most of them are manageable conservatively. (Rawal Med J 2010;35:).

Key words

Ileostomy, complications, stoma, skin excoriation, prolapse.

INTRODUCTION

The word “Stoma” comes from the greek word meaning mouth or opening.[1]

Ileostomy is a surgically created opening in the small bowel (ileum) on to the anterior abdominal wall to divert intestinal contents. Those consisting of a single intestinal lumen are termed end ileostomy, those giving access to an afferent and efferent limb may be loop or double barreled ileostomy. It may be temporary or permanent depending on their role.[2] An ileostomy was first advocated in ulcerative colitis in 1912 but was not widely used until Brooke demonstrated his everted ileostomy in 1952.[3]

The ileostomy is created by bringing the terminal small bowel through a trephine incision preferably through the rectus muscle and then creating an everted spout of 2-3cm in length.[4] Defunctioning loop ileostomies are used commonly to protect low colorectal anastamosis and thereby reducing the serious complications of leakage.[5] While Ileostomy causes physical and

emotional trauma to patient, it is a life saving procedure. [6] Complications associated with stoma are frequent and their impact ranges from simple inconvenience to life threatening.[7] Complication rates specific to loop ileostomies can be significant, ranging from 5.7% to 41%.[8] The aim of this study was to evaluate the frequency of complications of ileostomy in elective and emergency surgery.

PATIENTS AND METHODS

This study was conducted in the surgical department of Chandka Medical College Hospital, Larkana from August 2004 to February 2008. A total of 180 patients of ileostomies operated for various pathologies were evaluated. All were admitted through emergency department and had detailed history, thorough clinical examination, laboratory investigations including complete blood count and ESR, blood urea, creatinine, serum electrolytes, blood sugar, widal test, typhidot, ultrasound abdomen, x-ray chest P/A view and plain x-ray abdomen erect and supine including both domes of diaphgram were done.

The clinical assessment, operative findings as well as post operative complications were recorded. Initially, all patients were resuscitated by administering intravenous fluids with electrolytes replacement. Antibiotics were given preoperatively and continued postoperatively. All were operated in emergency under general anesthesia. Emergency laparotomies where primary repair was performed were excluded from this study. The specific surgical complications recorded were skin excoriation, retraction, stenosis, prolapse, peristomal sepsis, ischemia, bleeding and parastomal hernia. The

anesthetic, biochemical complications and complications related to laparotomy wounds were excluded. All patients were followed for 6 to 8 weeks after ileostomy.

RESULTS

Out of 180 patients, 93(51.6%) were of enteric perforation followed by intestinal obstruction (Table1). Male to female ratio was 1:1.22 (99 female and 81 male) with age range of 12 to 65 (mean 29 years). The operations were performed under general anesthesia. All patients underwent laparotomy through midline incision and temporary loop ileostomy or double barreled ileostomies were made in all cases, excluding those where primary repair of intestine were made.

Table 1. Indications for ileostomy (n=180).

Abdominal Pathologies	Number	Percentage
Enteric Perforation	93	51.6 %
Intestinal obstruction	49	27.2 %
Abdominal Tuberculosis	20	11.1 %
Abdominal Trauma	18	10 %

One hundred eight patients recovered without complications while 72(40%) patients developed various complications. Skin excoriation and retraction were the commonest complications (Table 2). Most of these were treated conservatively but 13 cases (18%) required revision surgery (05 cases of

ileostomy retraction, 05 cases of ileostomy stenosis and 03 cases of ileostomy prolapse).

Table 2. Complications encountered (n=180).

Complications	Number	Percentage
Skin excoriation	38	21.1 %
Retraction	12	6.6 %
Stenosis	08	4.4 %
Prolapse	08	4.4 %
Peristomal sepsis	03	1.6 %
Ischemia	02	1.1 %
Bleeding	01	0.5 %

No case of parastomal hernia was seen. Mortality was zero.

DISCUSSION

Patients undergoing stoma formation are at risk of developing a wide range of complications following surgery.[9] Robertson et al[10] reported stoma related complications rate between 10 and 70%, which may be because of varying lengths of follow up. In their study, 408 patients under went ileostomy and colostomy and complications rate for skin excoriation, leakage, soiling or night time emptying were higher amongst the ileostomy patients. In another study of 24 ileostomies, surgical complications occurred in 11(46%), retraction in 6(25%), peristomal sepsis in 3(12.5%) and parastomal hernia in 2(8.1%).[11] Duchesne CJ et al reported 25% ileostomy complications which included prolapse in 9 (22%) necrosis in 9 (22%) stenosis in 7 (17%) irritation in 7(17%) infection in 6 (15%) bleeding in 2 (22%) and retraction in 2 (5%).[12]

Safirullah et al reported major complications as skin excoriation (12%) oedema of spout (8%) prolapse (6%) and retraction (4%).[13]

The most common complications noted by Park JJ were skin irritation 12%, prolapse 2% and stenosis 2%.[14] Parastomal hernia in 18 cases out of 163 stoma has been reported.[15] patients. In our study no case of parastomal hernia was observed. Peristomal skin excoriations and other skin related complications have been reported by several other investigators.[16-18] Although deaths have been reported in patients undergoing ileostomy, in our study no death occurred.[19] In this study, 72(40%) of our patients developed various major and minor complications and many recovered with conservative management. The percentage of revision surgery of 36%,[20] is quite higher than our study.

CONCLUSION

Complications of ileostomy were common and most were manageable conservatively.

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