



CURRENT MANAGEMENT OF INTESTINAL STOMA AND THEIR COMPLICATIONS AT THE TERTIARY CENTRE

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ABSTRACT

Abdominal stoma is an opening of the intestine where temporary or permanent opening over anterior abdomen is made surgically. These are used to divert the faecal contents for safe distal anastomosis and to relieve obstruction in emergency surgeries or even in elective surgeries also. Though it is a lifesaving procedure and may be temporary or permanent. Sometimes it may result in number of significant complications which may be starting from early postoperative periods to late complications. **Methods:** This is a prospective observational study. There were 73 patients out of which 28 patients who has no complications were excluded from study. 45 patients were included in study who has abdominal stomas with complications. The study was done in the Department of General Surgery, Nalanda Medical College and Hospital, Patna, Bihar, India. Results: In the present study there were 40 males and 5 females in the ratio of nearly 8:1. The males are 83.52% as compared females 16.47%. The commonest age group for stoma formation was in 21–30 years in either sex which is 23.52%. Numbers of males are higher in the age group of 51-60 years. The end ileostomy was made in 36 patients and loop ileostomy was in 9 patients. Oedema was seen maximally 5 patients of loop ileostomy. The other complications which were less common are retraction and ischemia of stomas. Four patients were died during treatment in this period in the present study. **Conclusions:** Intestinal stomas are commonly performed surgical procedure for intestinal diseases, to minimise or decrease the potential complications due to intestinal stoma meticulous attention and extreme care should be employed in preoperative and postoperative periods. Here we have provided an overview of the complications seen in formation of intestinal stomas, keeping these probable complications in mind, decision making and surgical technique continue to be the keys to successful stoma formation.

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INTRODUCTION

Intestinal stomas is very important component of the surgical diseases management related to gastrointestinal tract. Complications of intestinal stomas are occurring with relative frequency despite of advances in medical sciences. These complications of intestinal stomas were resulting in very high financial loss along with general morbidity and physiological and psychological disturbances. Complications of intestinal stomas can occur any time after its formation may be early those occurring within one month postoperatively or late, those occurring after one month.¹ The important factor which favor abdominal stoma are blood loss, shock, faecal contamination of peritoneal cavity leads to multiple perforations as comparison to primary closure.² The abdominal stomas can be formed for various indications like,, bowel obstruction, cancer of colon & rectum, ulcerative colitis, Crohn's disease, congenital defects, ischemic bowel disease injury.³ In the present study, it has been tried to identify the

complications associated with abdominal surgery especially those occurring in early postoperative periods.

METHODS

This is a prospective observational study which was conducted on patients of abdominal stoma in the Department of General Surgery, Nalanda Medical College and Hospital, Patna, Bihar, India. We have studied 45 patients who were admitted through accident and emergency department needing intestinal stomas ileostomy. Patients under 17 years and urinary conduits were excluded from the present study. All the studied patients were resuscitated in accident and emergency department in form of intravenous fluid, antibiotics, oxygen inhalation. They were investigated for in all form for preanesthetic check- up. All possible attempts were to make patients fit for emergency surgery. They were observed and their operative findings, procedure done, complications after surgery related to abdominal stoma were recorded up to their discharge from hospital. Good stoma care bag for abdominal stoma along with adhesive paste was also used for application of bag. During the

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stay in ward, patient and their attendants were also briefed about management the stoma care and its related complications. We have studied their age group with male to female distribution of patient, type of complications related to abdominal stomas and their management.

RESULTS

In the present study there were (40) males and (5) females in the ratio of nearly 8:1. The males are 83.52% as compared females 16.47%.

Table 1 Sex wise distribution

Male	%	Female	%	Total	%
40	83.52	05	16.47	45	100

Table 2 Age wise distribution

Age group(inyears)	Male(n=71)	Female(n=14)	Total	%
<20	2	0	2	8.23
21-30	5	2	7	23.52
31-40	8	1	9	12.94
41-50	5	0	5	16.47
51-60	10	0	10	20.00
>60	10	2	12	18.82
Total	40	5	45	100

The commonest age group for stoma formation was in 21–30 years in either sex which is 23.52% as shown in Table 2. Numbers of males are higher in the age group of 51-60years. The endileostomy was made in 36 patients and loopileostomy was in 9 patients. Mild complications like oedema were seen maximally as per Table 3. Major complications like ileus, burst abdomen were less common. Four patients were died during treatment despite our best efforts in this period.

Table 3 Complications in relation to stoma ileostomy

Name of complication	Endileostomy n=36		Loopileostomy n=9	
		%		%
Oedema	10	27.7	2	22.22
retraction	3	8.3	1	11.11
ischemia	2	5.55	1	11.11
ileus	5	13.8	1	11.11
excoriations	5	13.8	1	11.11
Wound infection	3	8.33	1	11.11
Burst abdomen	5	13.8	1	11.11
mortality	3	8.33	1	11.11

I leus was the most common complication seen in end colostomy and very less complication was seen in loop colostomy.

DISCUSSION

Complicated stoma produces many upsets in life like, social, psychological and domestic. These complications can be skin irritation, ischemia and stoma retraction.4 In the present study, an attempt was made to identify common complications associated with intestinal stoma and their management in our set-up. We have tried our best to identify different types of complications of stoma formation. The rates of abdominal stomas complications vary in the literature to literature. Some reports shows that either ileostomies or colostomies solely responsible, that make more difficult to make definitive conclusions about the actual incidence. The conflicting data exists as to whether complication rates between colostomies and ileostomies are the same.5,6

A number of patients undergo surgeries for faecal diversion in emergency. But despite of number of such surgeries done,

complications are still inevitable. Patients undergoing stoma formation are at risk of developing a wide range of complications following surgery.7 In a study conducted by Gooszen *et al* and Carlsen *et al* reported complication rates specific to loop ileostomies can be significant, ranging from 5.7% to 41% and reoperation rates for loop ileostomies vary widely.8,9 In the present study also we have reported higher complications with ileostomy as compared to colostomy and even loop ileostomy have still higher than end ileostomy.

Complication rates are also vary in which circumstances stoma created. most of the authors agreed that emergency operations with gross peritoneal soiling, creation of stomas in debilitated or malnourished patients and gangrenous or perforated intestine particularly large perforation or multiple perforations forced to make stomas that leads to increased postoperative morbidity, this has not been supported in several studies.10,6 We have done all our surgeries in emergency setting, this is in contrast to the above studies. Twenty-eight percent of complications were reported by Park *et al* in their series within one month of time and about six percent were occurred after one month.

CONCLUSION

Surgeries resulting in stomal complications show a higher frequency of complication in end or loop ileostomy. Skin excoriation, wound infection and ileus are the most common complication. To study the incidence and severity of abdominal stomas complications and the factors that lead to the development of such complications require new scientific knowledge and provides a foundation upon which to build future research. This new information may potentially lead to the development of interventions that will improve care and quality of life for struggling for life with their stomas.

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