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Article

### ANALYSIS OF COMPLICATIONS AND MANAGEMENT OF ABDOMINAL STOMA

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#### Abstract:

**Background:** the abdominal stoma is a temporary or permanent intestinal opening on the anterior abdomen. These serve to deflect the stool content for a safe distal anastomosis and to alleviate obstruction in emergency medical practices or even in elective practices. Although it is a life-saving procedure and can be temporary or permanent. At times, numerous significant complications can occur, ranging from early postoperative periods to late complication.

**METHODS:** This is a prospective observational study conducted on 85 patients with abdominal punctures in the Department of General Surgery, Punjab Medical College Faisalabad.

**Results:** In the present study, there were (71) men and (14) women in the ratio of almost 5: 1. Males are 83.52% compared to 16.47% of females. The most common age group for ostomy formation was between 21 and 30 years in both sexes at 23.52%. The number of men is higher in the age group of 51-60 years. Endileostomy was performed in 46 patients and ring ileostomy in 27 patients. In up to 19 patients with loopileostomy, edema was observed. The other complications that are less common are stoma retraction and ischemia. In the present study, four patients died during treatment during this period.

**Conclusions:** intestinal tumors are commonly used in intestinal disease to minimize or minimize potential intestinal complications. In preoperative and postoperative periods, meticulous attention and extreme care should be used. Here we have provided an overview of the complications observed in the formation of intestinal tumors. Considering these likely complications, decision making and surgical technique remain the keys to ostomy formation.

**Keywords:** Abdominal stoma, Ileostomy, Colostomy, Complications, Excoriations

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**INTRODUCTION:**

The intestinal stoma is a very important component of the management of surgical diseases associated with the gastrointestinal tract. Complications of the intestinal stoma occur relatively frequently despite medical advances. These complications of the intestinal stoma resulted in a very high financial loss, a general morbidity and physiological and mental disorders. Complications of intestinal stoma can occur at any time after its onset, those occurring within a month after surgery or late

Event after 1 month.<sup>1</sup> The important factors that favor the abdominal stoma are blood loss, shock, contamination of multiple perforations of the cavity with respect to primary occlusion.<sup>2</sup> The abdominal stoma can be formed by various indications such as intestinal obstruction, colon and rectal cancer, ulcerative colitis, Crohn's disease, birth defects, intestinal ischemic disease, intestinal lesions, inflammatory bowel disease, bladder and spinal cord injury.<sup>3</sup> In the present study, attempts were made to identify abdominal complications that occur in our institution in the early postoperative periods.

**METHODS:**

The intestinal stoma is a very important component of the management of surgical diseases associated with the gastrointestinal tract. Complications of the intestinal stoma occur relatively frequently despite medical advances. These complications of the intestinal stoma resulted in a very high financial loss, a general morbidity and physiological and mental disorders. Complications of intestinal stoma can occur at any time after its onset, those

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**RESULTS:**

In the present study, there were (71) men and (14) women in the ratio of almost 5: 1. Men are 83.52% compared to women by 16.47%. The most common age group for ostomy formation was 21 years- 30 years for both sexes, or 23.52%, as shown in Table 2. The number of men is higher in the age group between 51 and 60 years. Endileostomy was performed in 46 patients and ring ileostomy in 27 patients. Edema was seen. A maximum of 19 patients with ring ileostomy according to Table 3. According to this table, other less common complications are abstinence and the four patients with ischemia died during treatment despite our best efforts during this period. Colostomies have far fewer complications than ileostomy, as shown in Table 4. The ileum was the most common complication observed in endileostomy and very few complications were observed in the ring colostomy.

**Table 1: Sex wise distribution.**

Male	%	Female	%	Total	%
71	83.52	14	16.47	85	100

**Table 2: Age wise distribution.**

Age group (in years)	Male (n=71)	Female (n=14)	Total	%
<20	5	2	7	8.23
21-30	14	6	20	23.52
31-40	10	1	11	12.94
41-50	12	2	14	16.47
51-60	16	1	17	20.00
>60	14	2	16	18.82
Total	71	14	85	100

**Table 3: Complications in relation to stoma ileostomy.**

Name of complication	End ileostomy n=46	%	Loop ileostomy n=27	%
<b>Oedema</b>	21	45.65	19	41.30
<b>retraction</b>	3	6.52	1	2.17
<b>ischemia</b>	2	4.34	1	2.17
<b>ileus</b>	22	47.82	18	39.13
<b>excoriations</b>	27	58.69	16	34.78
<b>Wound infection</b>	24	52.17	19	41.30
<b>Burst abdomen</b>	5	10.86	3	6.52
<b>mortality</b>	3	6.62	1	2.17

**Table 4: Complications in relation to colostomy.**

Name of complication	End colostomy n=9	%	Loop colostomy n=3	%
<b>Oedema</b>	0	00.00	1	33.34
<b>retraction</b>	1	11.11	0	00.00
<b>ischemia</b>	2	22.22	0	00.00
<b>ileus</b>	4	44.44	1	33.33
<b>excoriations</b>	2	22.22	0	00.00
<b>Wound infection</b>	3	33.33	1	33.34
<b>Burst abdomen</b>	1	11.11	0	00.00
<b>mortality</b>	0	00.00	0	00.00

**DISCUSSION:**

The complicated stoma causes many disorders in life, at a social, mental and domestic level. These complications may include skin irritation, ischemia and stoma retractions.<sup>4</sup> The present study attempted to identify common complications associated with intestinal stomata and their treatment in our system. We have done our best to identify various types of complications in stoma formation. The complication rates of abdominal stomata vary from literature to literature. Some reports show that only ileostomy or colostomy is responsible, making it difficult to draw definitive conclusions about the actual incidence. There are conflicting data on the fact that the complication rates between colostomies and ileostomies are the same.<sup>5,6</sup>

A number of patients are operated on in an emergency to divert faeces. But despite the number of such operations, complications are still inevitable. Patients undergoing ostomy experience the risk of developing a wide range of complications after surgery.<sup>7</sup> In a study by Gooszen et al. E Carlsen et al. Significant rates of complications of loopile ileostomy have been reported between 5.7% and 41% and reoperation. The ileostomy rates of the loop vary widely.<sup>8,9</sup> The

present study also reported higher complications of the ileostomy than colostomy and even the continuous-cycle ileostomy is still superior to endileostomy.

Complication rates also vary under what circumstances an ostomy is produced. Most authors have agreed that emergency procedures involving severe peritoneal filth, stomata formation in weakened or malnourished patients and cancerous or perforated intestinal tracts, particularly large perforations or multiple perforations, which are forced to form stomata, determine an increase in postoperative morbidity has not been demonstrated in several studies.<sup>10,6</sup> We performed all surgical procedures in an emergency, in contrast to the studies above. 28% of complications were reported by Park et al. Within a month of their reported series, and about 6% occurred after a month. The overall incidence of complications was observed in their attacks in the loopile ileostomy (75%) and the lowest incidence in the transverse colostomy (6%). Skin irritation was the most common early complication (12%).<sup>11</sup> They also reported major complications of ileostomy compared to colostomy. The present study also shows greater complications in ileostomies.<sup>11</sup>

In our study, we also reported elevated skin excoriation complications 27 patients (58.69%) of endileostomy and 16 loopileostomy patients (43.78%). Pearl et al. He reported a complication rate of 25.9% in 610 patients undergoing ostomy. peristomal skin irritation.<sup>12</sup> The most frequent early complication in their study was (42.1%). These were more frequently associated with ileostomies than with colostomies. The formation of an emergency stoma has been associated with the highest complication rates. Duchesne et al. A 25% complication rate was observed in 164 patients with intestinal obstruction for a period of 3 years, of which 39% occurred in the early stages.<sup>5</sup> The most frequent early complications observed in their study were gastric necrosis (4.3% of patients) all patients, 17.1% complications), peristomal irritation of the skin (1.6% of all patients, 7.3% of complications) and retention of ostomy (1.2% of all patients, 4.6% of complications). There are many factors responsible for complications of the ostomy, such as: high body mass index, inflammatory bowel disease, use of steroids and immunosuppressants, diabetes mellitus, age, emergency surgery, surgical technique and experience of the surgeon.<sup>13</sup>

The most common stoma in our study was endileostomy in 46 patients (54.11%) with loopileostomy 27 (31.76%) followed by terminal colostomy 9 (10.58%) and colostomy ring 3 (3.52%), most of which form 83.52% in males. Similarly, in a study by Shah et al<sup>14</sup>, loopileostomy was the most commonly formed stoma (70%), followed by the ring colostomy (17%). The ileostomy represented 70% of the stomata. In another study by Ghazi et al. Followed by colostomy in 30% .<sup>15</sup> In a study on the safirullahetal loop ileostomy, loop colostomies were performed in 43% of cases and in 17.4% of cases.<sup>16</sup> Robertson et al. He reported a rate of ostomy complications between 10 and 70%. which may be due to different follow-up lengths Duschesne and Harris, who reported complications in 26%, 25% and 25% of their cases, respectively, 5.17 reported that the incidence of peristomal skin irritation in their study ranges from 3-42%, from dermatitis mild peristomal to full-thickness skin necrosis, ranging from reported ulcerations. The most commonly reported complications in their study were peristomal skin irritation and erythema (36%), followed by wound infection with laparotomy (13.4%) and infection with peristomal skin, abscess formation and fistula formation (8.1%).

In the present study wound infections and ileus were frequently observed. There were five patients with broken abdomen in endileostomy who were treated conservatively. Ischemia has been reported

in three patients with ileostomy and one patient with colostomy.

A study by Ratliff et al. In 53% of cases it showed peristomal irritation, while Pearl et al. In 42 patients, the peristomal erythema syndrome was the most common complication.<sup>12,18</sup> In our study, the mortality rate was 4.70%, following which patients died of primary disease; This is lower than the 10% mortality rate reported by Jhobta et al.<sup>19</sup>. The incidence of peristomal skin irritation reported in their study is between 3 and 42% .<sup>20</sup> The degree of irritation may differ from that of mild peristomal dermatitis. Most of these cases are due to neglect of the ostomy and improper positioning or adaptation of the device, with consequent loss of the device. It is often inconvenient for the patient to discharge the ostomy on discharge from the hospital. Every effort should be made to ensure adequate pre-discharge Although the abdominal stoma is a life-saving procedure, it involves a significant number of complications. Despite extensive surgical experience, there are still complications of ostomy, which often results in social isolation and a significant reduction in quality of life. Factors that influence the type and frequency of complications include surgical specialties, the surgeon's experience in producing emergency stomata, adequate preoperative labeling and education, and patient problems such as age, obesity, diabetes and the ability to treat stomachs. The goal of Our study is therefore to evaluate our experiences and determine the complications related abdominal tumors and their management in the respective ostomy.

### CONCLUSION:

Surgery leading to stoma complications shows a higher complication rate in endileostomy and in men. This may be due to a greater number of male patients. Skin excoriation, wound infection and ileus are the most common complications. In order to study the incidence and severity of abdominal complications and the factors that lead to the development of such complications, new scientific evidence and a basis on which to build future research are needed. This new information could potentially lead to the development of measures to improve the care and quality of life of patients struggling for their life with the stoma.

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