



EVALUATION OF INDICATIONS OF ILEOSTOMY AND ITS COMPLICATIONS

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ABSTRACT **Objective:** To evaluate the indications of ileostomy and its complications.

Material and methods: This prospective study was carried out in the Dept of General Surgery from 2016 to 2018. A total of 122 patients of ileostomy done either elective or emergency setting for any cause that was included in the study

Results: Prospective study conducted in the department of surgery from January 2016 to December 2018.

A total 122 patients underwent ileostomy out of which 83 cases (68%) were males and 39 (32%) were females. Maximum number of cases were seen in group 26 to 35 yrs (n=42 out of 122) 34.4%. 51 (42%) stomas are made in elective setting and 71 (58%) were made in emergency setting. The most common indication for ileostomy was typhoid perforation (n=76, 62%), traumatic perforation (n=20, 17%), tubercular perforation (n=10, 8%), focal diversion for protection of primary anastomosis (n=15, 12%) and ulcerative colitis (n=1, 1%). Most commonly performed ileostomy is the loop ileostomy that is 111 (91%) followed by end ileostomy that is 11 (9%). Total 66 complications were observed in 59 patients that is 48%. Complications reported as local sepsis (28%), retraction (8%), prolapse (8%), necrosis (6%), intestinal obstruction (1%) and electrolyte imbalance (3%).

Conclusion: Typhoid perforation is the most common indication of ileostomy. The local sepsis is the most common complication.

KEYWORDS :

INTRODUCTION

Gastrointestinal and urinary tract is connected to abdominal wall by a surgically created opening called stoma¹.

A connection of ileum to the stoma of abdominal wall is ileostomy¹. Ileostomy was first advocated in ulcerative colitis in 1912 but was not widely used until Brooke administered his everted ileostomy in 1952². Various indications for which intestinal stomas are performed are – ulcerative colitis, bowel obstruction, Ca of colon and rectum, Crohn's disease, congenital bowel defects, uncontrolled bleeding from large intestine, injury to the intestinal tract, IBD, ischaemic bowel disease, carcinoma of urinary bladder and spinal cord injury³.

Although ileostomy is a life saving procedure on one hand, it causes physical and emotional trauma to patients with additional economic burden⁴.

Factors affecting type and frequency of complications include surgical speciality, surgeon experience, emergency vs elective creation, appropriate preoperative marking and education, and patient issues such as age, obesity, diabetes and ability to care for stoma⁵.

The aim of our study is to evaluate indications of ileostomy and study its complication.

MATERIALS AND METHODS

This prospective study was carried out in the Dept of General Surgery from 2016 to 2018.

A total of 122 patients of ileostomy done either elective or emergency setting for any cause that was included in the study. Data was collected from patients records, operative notes and patient case sheets. These cases were studied to evaluate indication, type and complication of ileostomy.

Table 1: Age Distribution

Age Group	Frequency	Percentage
15-25 yrs	8 + 2 = 10	6.6 + 1.6 = 8.2%
26-35 yrs	42	34.4
36-45 yrs	37	30.3
46-55 yrs	18	14.8
>55 yrs	15	12.3
	122	100%

In our study, maximum number of cases were seen in group 26 to 35 yrs (n=42 out of 122) 34.4% followed by group 36-45 yrs (n=37 out of 122) 30.3%.

Table 2: Sex Distribution

Sex	No.	Percentage
Male	83	68
Female	39	32
Total	122	100

In our study, males (n=83 out of 122) 68% were commonly affected than females (n=39 out of 122) 32%.

Table 3: Elective vs Emergency

Type	No.	Percentage
Elective	51	42%
Emergency	71	58%

In our study 51 (42%) stomas are made in elective setting and 71 (58%) were made in emergency setting.

Table 4: Indications

Indication	No.	Percentage
1 Typhoid perforation	76	62%
2 Traumatic perforation	20	17%
3 Tubercular Perforation	10	8%
4 Focal diversion for protection of primary anastomosis	15	12%
5 Ulcerative Colitis	1	1%
	122	100%

In our study the most common indication for ileostomy was typhoid perforation (n=76, 62%), traumatic perforation (n=20, 17%), tubercular perforation (n=10, 8%), focal diversion for protection of primary anastomosis (n=15, 12%) and ulcerative colitis (n=1, 1%).

Table 5: Type of ileostomy

Type	No.	Percentage
Loop ileostomy	111	91%
End ileostomy	11	9%

In our study, most commonly performed ileostomy is the loop ileostomy that is 111 (91%) followed by end ileostomy that is 11 (9%).

Table 6: Complications of ileostomy

Complications	Number	Percentage
1 Local sepsis	34	28%
2 Stenosis	0	0
3 Retraction	10	8%
4 Parastomal hernia	0	0
5 Prolapse	10	8%

6 Necrosis	7	6%
7 Intestinal obstruction	1	1%
8 Bleeding	0	0%
9 Electrolyte Imbalance	4	3%
	66	48%
		(59 pt)

In ileostomy patients, total 66 complications were observed in 59 patients that is 48%. In our study, complications reported as local sepsis (28%), retraction (8%), prolapse (8%), necrosis (6%), intestinal obstruction (1%) and electrolyte imbalance (3%)

DISCUSSION

The various data from literature and comparing it with the present series, a few interesting facts come into the limelight.

In our studies, max cases are seen in age group 26-35 years, 42 cases (34.4%) and 36-45 yrs 37 cases (30.3%)

In our study, out of the total 122 cases, 83 were male (68%) and 39 (32%) were female with male female ratio of 2.1:1

The age ranged from 15 to 57 yrs While study conducted by Saquib et al, shows out of total 261 cases, 185(70.88%) were male and 76 (29.12%) were females with male to female ratio of 2.43:1. The age range was from 15 to 58 yrs⁴ Our study, was as such: 51(42%) stomas are made in elective setting and 71(58%) were made in emergency setting.

In our study indications were: typhoid perforation, traumatic perforation, tubercular perforation, fecal diversion for protection of primary anastomosis, ulcerative colitis.

The most common indication is typhoid perforation which is seen in the study conducted by Adnan et al⁵ Delayed presentation, marked sepsis and poor nutritional status were the common factors in these patients. Preference was given to temporary loop ileostomy over primary closure. Inflammatory bowel disease and diversion loop ileostomy for colorectal diseases are other common indications⁶. Unlike the west, typhoid is still a common cause of ileal perforation^{8,9}.

While the study performed by saquib et al shows the commonest indication was ileal perforation.

In our study, loop ileostomy is the most commonly performed that is 111 pts (91%) followed by end ileostomy 11 pts (9%)

Study conducted by Sumathi et al shows that 89% were loop ileostomy and 11% with temporary end ileostomy.

In ileostomy patient total 66 complications were observed in 59 patients that is 48% patients.

In our study, the complications are as follows: Local sepsis retraction, prolapse, necrosis, intestinal obstruction, electrolyte imbalance.

The most common complications were local sepsis followed by retraction and prolapse.

Table 7: Procedure and Complications of study conducted by Sumithi et al¹

Type of Stoma	No. of complications
End Ileostomy	1
Loop Ileostomy	7

There are 8 complications observed in 9 patients

Table 8: Specific Complications in each stoma type conducted by Sumithi et al¹

	End Ileostomy (N=2)	Loop Ileostomy (N=8)
Hernia	0	0
Prolapse	1	0
Retraction	0	1
Necrosis	0	1
Local Sepsis	0	4
Stenosis	0	0
Bowel Obstruction	0	0
Peristomal Abscess	0	0

Although stomal complication is a novel complication for mortality, it is acknowledged that other established prognostic indicators hold stronger influence. As such age, urgency of surgery and diagnosis are found to influence morbidity and mortality rates¹⁰.

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