

Original Research Article

Prospective Analysis of Indications and Complications of Temporary Loop Ileostomy

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Abstract:

Ileostomy is life saving procedure and associated with a significant number of complications. So all the potential metabolic and mechanical problems associated with an ileostomy. The purpose of this study was to find out the indications and complications of temporary loop ileostomy.

Introduction:

The rationale for a temporary loop ileostomy is to provide defunctioning in case of potentially dangerous anastomotic complications with an obvious risk for mortality.

Objective:

To analyse the indications and complications of temporary loop ileostomy.

Methods:

All patients who had temporary loop ileostomy during that period were included in this study. 11 patients who had temporary loop ileostomy during that period were included in this study.

Results:

The most common patient fall in age group 31-45 years for ileostomy operation, most common symptom is fever and pain abdomen and most common complication was skin problem.

Conclusion:

Typhoid perforation to be the commonest indication for temporary loop ileostomy. Peristomal skin excoriation was the most common observed complication.

Key Words: Resection and Anastomosis, Enterocutaneous Fistula, Enteric Fever.

Introduction:

The first surgical stoma was created more than 200 years ago. The earliest stomas were actually unintentional ones, enterocutaneous fistulas resulting from penetrating abdominal injuries or complications of intestinal diseases such as incarcerated hernias.^[2] The rationale for a temporary loop ileostomy is to provide defunctioning in case of potentially dangerous anastomotic complications with an obvious risk for mortality. Fecal diversion through a temporary stoma can reduce the effects of anastomotic leak and also the rate of leak related interventions.^[7]

Objective:

To analyse the indications and complications of temporary loop ileostomy.

Material and Methods:

This prospective study was carried out at Govt. Medical College Patiala. All patients who had temporary loop ileostomy during that period were included in this study and written informed consent was taken from every patient. The age, gender and indications were recorded. Various complications were noted during postoperative hospital stay and subsequently during follow up till stoma was closed.

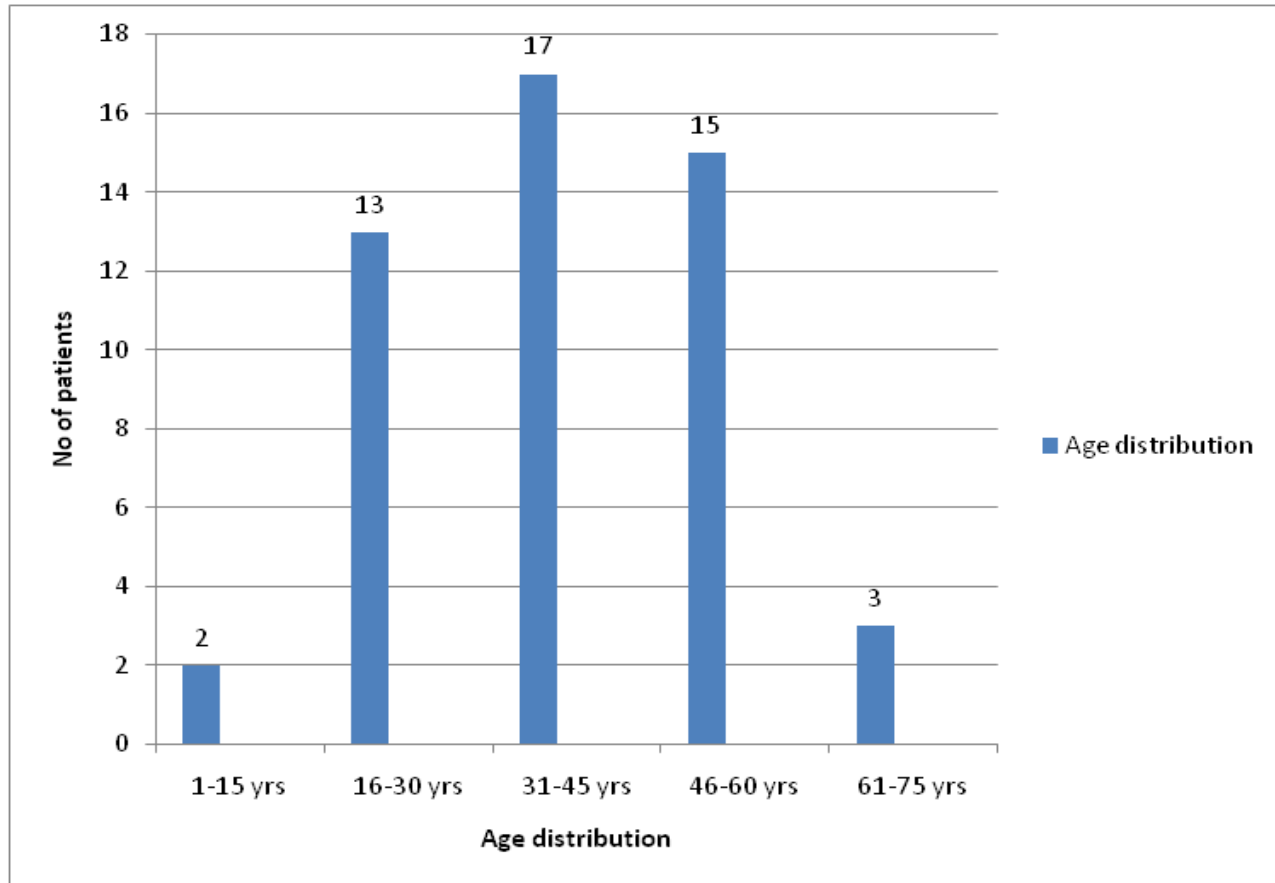
Results:

Fig. 1. Showing age distribution and no. of patients

TABLE 1 Clinical symptoms and signs on presentation

Symptoms	N (%)
Fever	48 (96%)
Abdominal pain	45 (90%)
Vomiting	39 (78%)
Abdominal swelling	35 (70%)
Anorexia	24 (48%)
Constipation	24 (48%)
Tachypnea	23 (46%)
Headache	21 (42%)
Diarrhea	14 (28%)
Hypotension	47(94%)
Tachycardia	48(96%)

Table 2 Indications of loop ileostomy

Indications	Number of patients
Typhoid perforation	37
Iatrogenic	02
Gangrenous bowel following intestinal obstruction	03
Covering ileostomy for low anterior resection	03
Anastomosis leak	02
Tuberculosis	02
Blunt abdominal trauma	01

Table 3. Complications of loop ileostomy

Complications	Number of patients
Skin problems	12
Poor siting	04
High output stoma	04
Bleeding	03
Retraction of stoma	03

Poor siting of stoma was the most common early complication. Transient oedema of ileostomy was seen in three patients. These three patients has distended oedematous bowel, and the oedema subsequently decreased once the stoma started working postoperatively. Three patients had retraction. Three patients had superficial bleeding from the ileostomy site wound. Bleeding in two patients was controlled by local measures and other patient required suturing under local aesthesia. Post-operative skin excoriation was the most common late complication observed in 12 (24 %) patients.

Discussion:

During the study period a total of fifty patients fulfilled the selection criteria. The highest incidence was seen in the 3rd decade of life, thus affecting socially productive age group.^[17] This might be due to lifestyle and dietary habits of the patients. The most common indication in this study was enteric (typhoid) perforation. Delayed presentation, marked sepsis and poor nutritional status were the common factors in these patients, so preference was given to temporary loop ileostomy over primary closure. Inflammatory bowel disease and diversion loop ileostomy for colorectal diseases are other common indications^[3] Unlike the west, typhoid is still a common cause of ileal perforation in our country.^[4,5] In this study, the overall complication rate was comparable to other studies worldwide. A complication rate of 41% associated with loop ileostomy construction, with 6% of all patients requiring surgical intervention has been reported.^[11] Others had a complication rate of 25% related to loop ileostomy construction and all required surgical intervention.^[9] Complication rate of 5.7-10.8% have been reported in one such study.^[10,11] There are many factors suggested to predispose to stoma complications like high body mass index, inflammatory bowel diseases, use of steroids and immunosuppressant drugs, diabetes mellitus, old age, emergency surgery, surgical technique and surgeon experience.^[12] In emergency situations, it is

important to at least mark the future stoma site on the abdominal skin before the incision. A retrospective study reported significantly lower incidence of early complications in patients who received counselling and evaluation by enterostomal therapist and were preoperatively marked for proper stoma site.^[13] Another study reported a six fold decrease in stoma complications when enterostomal therapists were involved in the treatment of stomapathients.^[14] However, others showed that the counseling by enterostomal therapist was not associated with reduction of the complication rate.^[12] Many surgeons consider loop ileostomy as preferred method for temporary faecal diversion.

Conclusion:

In conclusion, we found typhoid perforation to be the commonest indication for temporary loop ileostomy and is the stoma of choice when temporary faecal diversion is required. Other indications were tubercular perforations, Iatrogenic, diversion ileostomy for rectal tumors, blunt abdominal trauma, anastomosis leak and recto-vaginal fistula. Peristomal skin excoriation was the most common observed complication. The complications could be managed conservatively with the application of proper user friendly stoma appliances. Ileostomy should be avoided near a bony prominence, waist line, skin folds, scars and umbilicus, because all these interfere with appliance management and might subject the patient to complications. It is important to create a smooth pouching surface to allow proper appliance care when enterostomal therapist is not available.

Conflict of Interest: None

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