ORIGINAL ARTICLE

Audit of Ileostomies in Surgical Practice

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ABSTRACT

A 30 month review study of ileostomies is presented from a general surgical unit. A total of 47 ileostomies were performed in 166 cases of generalized peritonitis. There was a significant preponderance of male patients 28/47. Most common pathology for which ileostomy was performed was tuberculosis 49% followed by typhoid perforation 17%, missed injuries 17%, amoebic typhlitis 8%, carcinoma caecum 2% and anastomotic disruption 6%. Out of 47 cases loop ileostomy was performed in 34%, Brooke's ileostomy in 30%, double barrel in 28% and flush stoma in 8% patients. The most common complication encountered was skin excoriation 15%, other complications included were retraction of stoma and partial stomal ischaemia. There was no 30 days mortality in the series. Mean hospital stay was 12 days.

Key words: Ileostomy, stomal complications, tuberculous enteritis, typhoid enteritis

INTRODUCTION

Abdominal tuberculosis and typhoid are the most frequent cases of acute enteric perforation, commonly necessitating stoma surgery in Pakistan. In recent years tuberculosis has surpassed all other causes of enteric perforation necessitating small bowel stomas. Ileostomy is a life saving procedure particularly in those cases where there is fulminant enteritis and peritonitis of long duration. Complications following ileostomy are negligible in experienced hands.

MATERIAL AND METHODS

One hundred and sixty six cases with generalized peritonitis were managed in the last 30 months from July 2006 to Dec 2008. All the patients once diagnosed as the case of peritonitis were resuscitated to maintain optional tissue perfusion both before and during surgical procedure. Complete blood examination, blood urea, serum electrolytes, urinalysis, x-rays chest and abdomen done in all cases. Montoux, Widal, ESR and serum amylase were carried out where indicated. Antibiotics prescribed according to hospital policy as available in hospital formulary. Specimens sent for histopathology and culture and sensitivity for confirmation of diagnosis. Ileostomy was performed in those cases with peritonitis of more than 72 hours, oedematous gut, severe enteritis and multiple perforations.

Type of ileostomy depends upon the disease, part of the gut involved and surgeon's preference.

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Careful attention was paid to the selection of stoma site. Patients were followed up for any complications. Complications were detected early and handled on their merit. Patient education for ileostomy care was the part of post operative care.

The average duration for ileostomy reversal was 3-6 months depending upon the patients' general health and control of underlying disease.

RESULTS

Forty seven patients needed formation of ileostomies depending upon the local and general condition of the patients. Male to female ratio of patients is seen in table 1.

Table 1: (n=47)

Gender	=n	%age
Male	28	60
Females	19	40

Table 2. Causes of peritonitis

Cause	=n	%age
Tuberculosis	105	63.25
Typhoid	042	25.30
Missed injury (post traumatic)	011	06.60
Anastomotic disruption	003	01.80
Carcinoma caecum	001	00.60
Amoebic typhilitis	004	02.40

Table 3: Indications for ileostomy in accordance with disease pattern

Indications	=n	%age
Tuberculosis	23	48.92
Typhoid perforation	08	17.02
Missed injury	08	17.2
Anastomotic disruption	03	06.38
Carcinoma caecum	01	02.12
Amoebic typhilis	04	08.51

Twenty two percent of the patients with tuberculosis ileal perforation required ileostomy. Typhoid was the second commonest pathology responsible for ileostomy formation as in Table 2& 3.

The type of ileostomy formed was dependent on the condition of the gut, condition of the patient and disease pattern. As shown in Tale no 4.

Table 4: Types of ileostomies performed

Type of ileostomy	=n	%age
Classical brooke's ileostomy	14	29.78
Loop ileostomy	16	34.04
Double barrel ileostomy	13	27.65
Flush stoma	4	8.51

All patients were followed up till the reversal of ileostomy stoma for complications related to ileostomy. The most common complication which came across in the follow up period was skin excoriation 7/47(14.98%). The other complications were retraction of stoma and partial stomal ischaemia as shown in table 5.

Table 5: Complications associated with ileostomy

Clinical presentation	=n	%age
Skin excoriation	7	14.80
Retraction of stoma	2	4.25
Partial stomal ischaemia	1	2.12
Total	10	21.24

Duration of hospital stay varied between 7 to 32 days with a mean of 12 days. There was no 30 days mortality.

DISCUSSION

A careful physical assessment and psychological preparation are important for planning ileostomy[1]. In emergency procedures, the assessment and preparation may be less than ideal. Under these circumstances the physical and psychological complications following surgical procedure appear to be more frequent[2].

In our study all patients underwent ileostomies on emergency basis hence it makes postoperative psychotherapy of the patients regarding ileostomy even a more tedious job.

In tuberculous perforation of ileum, ileostomy was performed in the presence of frank peritonitis, plastered gut and multiple perforations otherwise resection and anastomosis was done. The resurgence of tuberculosis is because of poor patient compliance, multiple drug resistant tuberculosis and increased number of human immune deficiency patients.

Option of ileostomy in typhoid perforation was exercised to varying degree in different series. From procedure of choice in some[3,4,5], to almost sparingly as a last option in other series like ours.

Primary anastomosis should be avoided in patients with fulminant enteritis, severe ileal oedema, septicaemia and multiple perforations.

The other indications for ileostomy formation are missed post traumatic injuries, amoebic typhilitis, anastomotic disruption and carcinoma caecum.

The choice lies between Brooke's loop and double barrel ileostomies. In Brooke's ileostomy there is complete defunctioning of the distal gut hence preferable in inflammatory bowel disease[6]. Its reversal requires laparotomy. On the other hand, loop and double barrel ileostomies does not provide complete defunctioning but it can be closed without laparotomy[7,8]. The most common complications which we came across were skin excoriation, retraction of stoma and partial stomal ischaemia[9]. During the first few postoperative days fluid and electrolyte imbalance is the frequent problem which needs special attention and care[10,11].

In our study the most frequent complication which was encountered was skin excoriation. This can be prevented by using appliances consisting of flange or bag designed to fit closely and firmly to the skin around the stoma, with the help of latex mixture, karaya gum or stomahesive[11].

The modern techniques of designing a spouting ileostomy and mucocutaneous anastomosis has virtually abolished the previously common complication of stomal stenosis. The retraction of stoma, prolapse of ileostomies and transient stomal ischaemia are sequaellae of improper surgical technique[11].

CONCLUSION

Although bothersome:

- Resurgence of tuberculosis is worrying.
- Ileostomy is a life saving procedure in complicated cases.
- Improvement in fluid and electrolyte management has turned it into a safe procedure.
- Skin excoriation can be prevented by using newer appliances and stomahessive.

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