MORBI-MORTALITY RELATED TO ILEOSTOMY AND COLOSTOMY CLOSURE AT TERTIARY CARE HOSPITAL BIKANER

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Abstract

Background: To study the morbi-mortality related to ileostomy or colostomy closure at tertiary care hospital Bikaner

Material and Method: prospective hospital based study. 30 patients reporting to the General Surgery dept. within study duration and eligible as per inclusion criteria will be included in the study.

Results: Out of 30 Cases, (30.00%) patients had hypertension, 6(20.00%) had diabetes, 5 (16.67%) had renal dysfunction and 2(6.67%) cases had COPD. 11 (36.67%) patients developed complications post closure of ileostomy or colostomy. Medical complications accounted for a large proportion of complications (n=5), while major (n=4) and minor complications (n=2) were present.

Conclusion: ileostomy is effective and feasible as a diversion procedure and has reduced morbidity and complication rates.

Keywords: Ileostomy, Colostomy. Complications.

Introduction

Ostomy creation is used mainly for fecal diversion as a treatment option for colonic diseases. All segments of the colon can be used, as well as the distal part of the ileum. Hartmann's procedure was first described in the early 1920's by the French surgeon that named the procedure and was initially performed in patients with left colon neoplastic obstruction; the intention was to decrease mortality due to anastomotic leakage.¹⁻² With time, its indication has been extended to benign disorders such as complicated diverticulitis, gunshot wound to the colon and complications after primary colonic anastomosis. It is usually performed in the emergency setting when primary anastomosis is unfeasible, especially in haemodynamically unstable patients due to sepsis and multiorgan dysfunction.³ Currently, when resection of the left colon is needed, a single stage procedure with primary anastomosis is preferred by most surgeons⁴.

The diverting loop ileostomy is a commonly used stoma that is often employed to diminish the consequences of an anastomotic leak in low-colorectal anastomoses, ileal pouchanal anastomoses, and in situations in which reversible patient factors increase the risk of an anastomotic dehiscence⁵. A defunctioning loop ileostomy is traditionally closed 6 to 12 weeks after the initial surgery⁶. Once anastomotic healing is confirmed, any systemic factors are corrected, and any fistulae are controlled or corrected, these ileostomies are typically closed through the stoma site without a formal laparotomy. Both loop ileostomy construction and subsequent closure are generally believed to be fairly

straightforward, safe procedures with relatively low associated morbidity and mortality⁷.

Material and Methods

Study design: Hospital based prospective study.

Study population: A patients in which ileostomy/colostomy closure done was selected for this study.

Sample size: 30 patients reporting to the General Surgery dept. within study duration and eligible as per inclusion criteria was included in the study.

Inclusion Criteria:

1. All patients with previous ileostomy/colostomy closure during emergency/elective surgery.

Exclusion Criteria:

1. Patients whose data could not obtained from file
2. Stoma which is made for anorectal malformation and children
3. IBS(Inflammatory bowel syndrome)
4. Patients refusing for investigations or not interested for study

Data Collection;

Data were analyzed using Epi-info statistical software. The frequency for qualitative variables and mean and standard deviation for quantitative variables were calculated. Chi-square and Fisher's exact tests were used for hypothesis analysis. The confidence limit was 95% and P<0.05 was statistically significant.

Result

Table 1: Indications for loop or end ileostomy /colostomy

Indication	No. of Cases	Percentage
Cancer	16	53.33%
Perforation (any medical cause)	8	26.67%
Emergency Diversion (traumatic and others)	6	20%

The main cause for stoma were cancer 53.33%, Perforation (any medical cause) 26.67% and Emergency Diversion 20.00%.

Table 2: distribution of cases according to co-morbid condition

Co-morbid condition	No.of cases	Percentage
Diabetes	6	20.00%
Hypertension	9	30.00%
Renal Impairment	5	16.67%
COPD	2	6.67%
Total	22	73.33%

Out of 30 Cases, (30.00%) patients had hypertension, 6(20.00%) had diabetes, 5(16.67%) had renal dysfunction and 2(6.67%) cases had COPD.

Table 3: Complications post ileostomy or colostomy closure

Complication	Minor complication	Major complication	Medical complication	Death	Total
No. of cases	2(18.18%)	4(36.36%)	5(45.46%)	0(0%)	11(36.67%)

Overall, 11 (36.67%) patients developed complications post closure of ileostomy or colostomy. Medical complications accounted for a large proportion of complications (n=5), while major (n=4) and minor complications (n=2) were present.

Discussion

This hospital based prospective study was conducted in surgery dept. on 30 patients reporting to the General Surgery dept. Sardar Patel Medical college, Bikaner and eligible as per inclusion criteria were included in the study.

Although closure of ileostomy/colostomy is regarded as a relatively minor surgical procedure, it does require a second hospital admission which is accompanied by considerable costs, and is associated with significant morbidity¹.

In this study almost one third patients (36.67%) developed a complication which is much higher than that quoted in

the literature. The no mortality was found in the present study which is within the reported range. Most of the data regarding complications following ileostomy closure comes from a small number of reviews done in USA, Spain, Turkey, India and Europe reflecting a morbidity of 3-30% and a mortality rate of 0-4%⁸⁻¹⁰. A recent study on 5,401 patients demonstrated a complication rate of 9.3% and a mortality rate of 0.6%⁸.

The indications for the ileostomy /colostomy in this study included a mixture of patients with both rectal cancer and perforation mainly. Almost of the patients with Cancer developed complications. This could be one of the reasons for the overall high complication rate observed.

However, on comparison of the individual complication types with that reported in literature, most complications fall within the expected reported range⁸.

Conclusion

Ileostomy is effective and feasible as a diversion procedure and has reduced morbidity and complication rates.

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