



## To Compare The Outcome of Different Surgical Procedures In Management of Colorectal Carcinoma Presenting As Acute Intestinal Obstruction

## KEYWORDS

surgical procedures, colorectal,obstruction.

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**ABSTRACT**

*Surgical management of obstructed colorectal cancers has been associated with prohibitive perioperative morbidity and mortality rates despite advances in surgical techniques and intensive care.*

*There is no standardized protocol in management of such condition in some institutions. Hence this study was done to compare the outcome in terms of morbidity and mortality of different surgical procedures in management of colorectal carcinoma presenting as acute intestinal obstruction to our hospital.*

**INTRODUCTION:**

The incidence of complete obstruction in colorectal malignancy has been reported to be as high as thirty percent.<sup>1-2</sup>

A significant increase in incidence of colorectal cancer has been reported for both men and women over the last two decades in India. This rise in frequency could be attributed to westernization of our lifestyle, increased awareness and improved diagnostic tools.

But the ideal surgical option in management of acute cases malignant obstruction remains controversial<sup>3,4</sup>. The dismal results in the management of such cases could be attributed to many factors including the surgical procedures, advanced age, ASA score and site of malignancy<sup>5-6</sup> Hence, we undertook this study to review the treatment and early outcome of patients who underwent different emergency surgeries for acute colorectal malignant obstruction.

**METHODOLOGY:****Study design:**

It is a prospective, observational study which was conducted at Gandhi hospital, Hyderabad in department of general surgery from July 2015 to October 2015.

A total of 32 cases were included in the study of which 27 patients presented with obstruction, whereas 5 cases were pre operatively diagnosed as peritonitis due to hollow viscus perforation but intraoperative findings were suggestive of growth leading to obstruction and perforation.

**Data collection:**

A detailed history, clinical features, relevant investigations, histopathology and type of surgical procedure with post operative complications were observed and recorded.

**Treatment protocol:**

Pre operative resuscitation was done with intravenous fluids, blood transfusion, ionotropes and vasopressors if necessary, nil by mouth, ryles tube aspiration, urine output monitoring.

**Vitals were recorded.**

Intravenous taxim 1g and metronidazole 500mg and pantoprazole 40mg stat doses were given.

Patients with systolic bp more than 100mm of Hg and

pulse rate less than 90bpm were taken up for surgery. Patients who continued to be in hypotension after adequate resuscitation were taken up for surgery after 24 hrs with high risk consent.

All cases underwent one of the following surgical procedures

- Single stage operation : primary resection and anastomosis
- Two staged operation: primary resection anastomosis with proximal loop diversion or Hartmann's procedure where colostomy or ileostomy was closed on a later date.
- Three stage operation : loop colostomy or ileostomy alone followed by resection and anastomosis of growth and then closure of stoma in two different settings.

**Criteria for selecting type of surgical procedure :**

- ASA classification into I,II,III,IV and V
- Condition of the bowel unhealthy if perforation, gangrenous or pre gangrenous.

**Site of lesion**

1 For right sided malignancies less than ASA III single stage and more than ASA III three staged procedure.

For left sided malignancies less than ASA III with healthy bowel single or two staged procedure and for class more than ASA III with unhealthy bowel two or three staged procedure.

**Depending on the surgical procedure patients were categorized into different groups**

- Group I – single stage procedure
- Group II- two stage procedure
- Group III- three stage procedure

**Parameters measured:**

All patients were observed for 30 days for SSI's wound dehiscence, respiratory tract infections, post op ileus, anastomotic leak, length of hospital stay and mortality.

**Results**

Parameter	Total%	groupI	groupII	groupIII
Surgical site infection	28.125%	16.6%	41.6%	25%

Respiratory tract infection	18.75%	8.33%	25%	25%
ileus	3.125%	8.33%	0%	0%
Anastamotic leak	6.25%	8.33%	8.33%	0%
Length of hospital stay	-	12.3%	20.8%	9.8%

HPE stage: 53.125 % Dukes C  
18.75% Dukes D

TNM stage : 75% stage III

Morbidity was more in group II and mortality was more in group III when compared to I&II

#### Discussion :

This prospective study was taken up to analyze and compare the outcome of different surgical procedures in the management of colorectal cancer presenting as acute intestinal obstruction.

Surgical site infection was maximum in group II .these findings were comparable with Rassol et al <sup>9</sup>.This could be due to contamination from colostomy.

Respiratory tract infections were more in group II &III which differs from Rassol et al study.

Postoperative ileus was observed only in group I, which is low when compared to Rassol et al study.

Incidence of leak was almost similar in group II & III.

Length of hospital stay was more in group II due to re laprotomies.

All these patients belonging to group III expired in 48hrs after surgery. Hence mortality is not related to the type of initial surgical procedure. Mortality in group III was higher when compared to group I & II probably because of high ASA class, and advanced TNM stage and increasing age.

#### Conclusions:

In cases of colorectal carcinoma advanced age, increased ASA score, and advanced TNM stage are related to increase in mortality.

Initial surgical procedure is not related to the outcome.

Hospital stay is higher with 2 and 3 stage procedures.

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