



# COLORECTAL CARCINOMA; COMPARATIVE STUDY OF TREATMENT PATIENTS OF COLORECTAL CARCINOMA WITH OPEN AND LAPROSCOPIC SURGICAL TECHNIQUES.

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**ABSTRACT... Background:** Colorectal carcinoma is one of the most frequently diagnosed malignant diseases in men and women respectively. The frequency of postoperative complications was more in the open colorectal surgery than the laproscopic technique. **Objectives:** To examine the prevalence of early post operative complications/problems in patients whom treated surgery for colorectal carcinoma with open and laproscopic methods. **Study Design:** Cross-sectional study. **Place and Duration of Study:** Ghulam Muhammad Mahar Medical College Hospital, Sukkur and Jinnah Postgraduate Medical Centre, Karachi from 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2017. **Material and Methods:** One hundred and twenty patients included both men and women whom had undergone colorectal carcinoma surgery with open and laproscopic techniques. Patients aged between 20 to 61 years. Collected and recorded information demographically, prevalence of early postoperative complications and types of surgical methods was acquired. Patients who had rectal or any other carcinoma were excluded from study. **Results:** Out of 120 patients, 64 (53.33%) men and 56 (46.67%) women, mean age of both gender calculated  $38.95 \pm 11.5$  respectively. Surgical wound infection observed in 18 (15%) and not found in 102 (75%) patients. 10 (8.33%) patient observed abdominal abscess and 110 (91.67%) had no abdominal abscess. Out of 18 wound infected patients 8 (6.7%) had treated laproscopic surgery and 10 (8.33%) had treated open CRC surgery. In abdominal abscess patients 3 (2.5%) and 7 (5.83%) had treated LCS (laproscopic surgery) and open CRC surgery respectively. The presence of wound infection significantly associated with type of surgical method by using chi-square method having p-value 0.028. The presence of abdominal abscess was significantly associated with surgical technique having p-value 0.026. **Conclusion:** The frequency of early post operative complication was more common in the open colorectal carcinoma surgery than in laproscopic surgery. The presence of wound infection and abdominal abscess was found significantly associated with surgical methods or techniques.

**Key words:** Abdominal Abscess, Colorectal Carcinoma, Laproscopic/Open Surgery, Wound Infection.

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## INTRODUCTION

Colorectal carcinoma is the most frequently diagnosed malignant disease found worldwide in men and women. In all over the world 12 lacs people were effected to colorectal carcinoma and 0.687 million deaths were estimated in 2008.<sup>1</sup> Ratio of this malignant disease (cancer) is significantly higher in men than in women. Worldwide, Country-wise cases and mortality ratio are present in the WHO (world health organization) GLOBOCAN database. Western studies showed that the CRC new cases and mortality rate are slow and steadily going to the

decreasing in United States.<sup>2</sup>

Approximately 0.142 million new incidence of Large Bowel cancer are diagnosed annually, in which 0.102 million are colorectal and rest are rectal carcinoma.<sup>3</sup> Moreover, Some studies showed that some risk factors are mostly associated to Colon comparative to rectal carcinoma/cancer.<sup>4</sup> Many factors involved in developing malignant carcinoma, especially environment and genetic problems can increase the incidence of colorectal carcinoma.<sup>5</sup>

Commonly the surgical methods used for treatment of CRC are Open and laproscopic surgery. However, outcomes of both surgical techniques either short or long term are still in under observation. Many studies have been done to evaluate the outcomes of using both techniques. POC (post-operative complications) causes death in patients who had treated surgery for CRC and its prevalence fluctuated rely on operative method, surgical instruments, surgeon experience and patient condition.

This comparative study was conducted to evaluate the prevalence of early POC in patients whom had treated colorectal carcinoma surgery, so that it will be helpful for patients and surgeons for management of these malignant diseases.

**MATERIALS AND METHODS**

This cross-sectional study was carried out at Ghulam Muhammad Mahar Medical College Hospital, Sukkur and Jinnah Postgraduate Medical Centre, Karachi from 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2017. In this study, 120 patients were enrolled including both genders. They were divided in two groups, LCS and open CRC. Patients aged 20-61 years included. Patients who had other malignant on CT scan, plasma neutrophil level <2x10<sup>9</sup>/L were excluded. The data was analyzed by using SPSS 17.

**RESULTS**

In this study, 120 patients included both men and women, Patients aged between 20 to 61 years, 64 (53.33%) men and 56 (46.67%) women, mean age of both gender calculated

38.95+11.5 respectively. 62 patients had treated LCS surgery technique and 58 patients had treated by open CRC technique. Surgical wound infection observed in 18 (15%) and not found in 102 (75%) patients. 10 (8.33%) patient observed abdominal abscess and 110 (91.67%) had no abdominal abscess. Out of 18 wound infected patients 8 (6.7%) had treated laproscopic surgery and 10 (8.33%) had treated open CRC surgery. In abdominal abscess patients 3 (2.5%) and 7 (5.83%) had treated LCS (laproscopic surgery) and open CRC surgery respectively (Table-I).

The presence of wound infection significantly associated with type of surgical method by using chi-square method having p-value 0.028 (Table-II). The presence of abdominal abscess was significantly associated with surgical technique having p-value 0.026 (Table-I).

Variable	No.	%
Mean age	38.95+11.5	
<b>Gender</b>		
Male	64	53.33
Female	56	46.67
<b>Wound Infection</b>		
Found	18	15.0
Not found	102	85.0
<b>Abdominal Abscess</b>		
Found	10	8.33
Not found	110	91.67
<b>Surgical Technique Used</b>		
LCS (laproscopic)	62	51.67
Open CRC	58	48.33

Table-I. Demographic information of the patients

Wound Infection	Surgical Technique		Total
	LCS Surgery	Open CRC Surgery	
Found	8 (12.%)	10 (17.24%)	18
Not found	54 (87.1)	48 (82.76%)	102
Total	64 (100%)	58 (100%)	120

Table-II. Cross-examination of wound infection with surgical method

Abdominal Abscess	Surgical Technique		Total
	LCS Surgery	Open CRC surgery	
Found	3 (4.84%)	7 (12.1%)	10
Not found	59 (95.16%)	51 (87.9%)	110
Total	62 (100%)	58 (100%)	120

Table-III. Cross examination of abdominal abscess with surgical methods

## DISCUSSION

Many studies emphasized on the benefits stating the significant advantages of the laparoscopic approach compared with the open surgery of reduced blood loss, early return of intestinal motility, lower overall morbidity, and shorter duration of hospital stay, leading to a general agreement on laparoscopic surgery as an alternative to conventional open surgery for colon cancer. In this study, we included one hundred and twenty patients; the mean age was calculated 38.95+11.5 years. In which 64 (53.33%) patients were men and 56 (46.67%) patients were women. 62 patients had treated LCS surgery technique and 58 patients had treated by open CRC technique. Surgical wound infection observed in 18 (15%) patient and not found in 102 (75%) patients. We found 10 (8.33%) patients had abdominal abscess and 110 (91.67%) patients had no abdominal abscess. Out of 62, laproscopic treated surgeries 8 patients had wound infection and 3 patients found abdominal abscess, on the other hand 58 open CRC treated surgeries 10 people found surgical wound infection and 7 patients had observed abdominal abscess. If we go through the other studies regarding CRC, Mostly patients were in 5<sup>th</sup> and 6<sup>th</sup> decades of their lives, Only some patients had CRC whom aged were 20 to 30 years, and only 2 patients were <20 years.<sup>8,9</sup>

In a other descriptive study, the ratio of CRC patient in men is higher than women and the average age of the patients were thirty seven year and it showed the similarity to our study.<sup>10,11</sup>

In this study, we observed 28 (23.33%) patients found POC (post operative complication) after treated with both laproscopic and open surgery techniques and these results was similar to some other studies.<sup>12,13</sup> The presence of wound infection significantly associated with type of surgical method by using chi-square method having p-value 0.028. The presence of abdominal abscess was significantly associated with surgical technique having p-value 0.026. These results were observed to be statistical significant.<sup>14-19</sup>

In other study, showed that the post-operative

complications were most common in the open CRC surgical technique compare to the LCS (laproscopic) surgical technique.<sup>14</sup>

## CONCLUSION

Laparoscopic surgery for colon cancer demonstrates better short-term outcome, oncologic safety, and equivalent long-term outcome of open surgery.

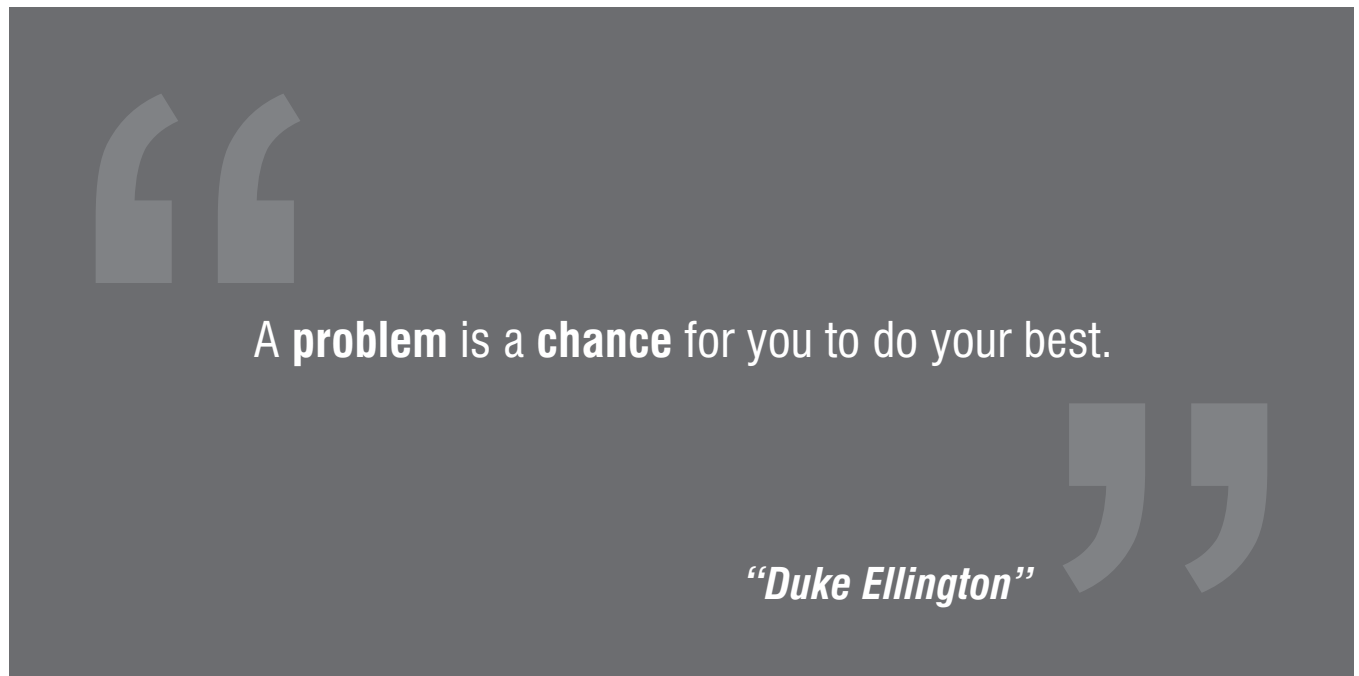
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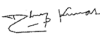
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**AUTHORSHIP AND CONTRIBUTION DECLARATION**

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Shahid Hussain Mirani	Data collection and writing of manuscript.	
2	Dileep Kumar	Data collection & literature.	
3	Abdul Waheed Khan	Statistical analysis & guidance in writing the manuscript.	