

A CLINICO PATHOLOGICAL STUDY OF COLORECTAL CARCINOMAS FOR A PERIOD OF TWO YEARS

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ABSTRACT

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Colorectal cancer is the most common malignancy in the gastrointestinal tract. Worldwide, colorectal cancer shows large geographic differences, with a crude incidence of 6.5/7.7 cases per 100,000 females/males in less developed areas as opposed to 50.9/60.8 in more developed regions. Adenocarcinoma is the most common type of colorectal malignancy responsible for more than 90% of the cases. Recent technological advances in computed tomography (CT), ultrasound (US), and magnetic resonance imaging (MRI) have made the diagnosis easy and accurate. Although surgery is the mainstay of treatment, radiotherapy (RT) and chemotherapy (CT) play a vital role, particularly in locally advanced tumours. A prospective study of 72 patients of colorectal malignancy conducted during a period of 24 months JUNE 2013 – June 2015 in GGH, and Kakinada.

KEYWORDS

Colorectal carcinoma, Adenocarcinoma, Duke's C staging, Serum CEA levels, Chemoradiation therapy, Anterior resection, Abdominoperineal resection.

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INTRODUCTION: Colorectal cancer is the most common malignancy in the gastrointestinal tract. Worldwide, colorectal cancer shows large geographic differences,¹ with a crude incidence of 6.5/7.7 cases per 100,000 females/males in less developed areas as opposed to 50.9/60.8 in more developed regions.^{1,2} Adenocarcinoma is the most common type of colorectal malignancy responsible for more than 90% of the cases.³ In the last 20 years colorectal malignancy has changed from a surgically managed disease in to multidisciplinary treatment model resulting in considerable improvements in the survival and outcome of patients. The detection of early-stage disease at diagnosis is associated with significantly improved survival, with a 5-yr survival rate of greater than 90% for those with localized disease. Recent technological advances in computed tomography (CT), ultrasound (US), and magnetic resonance imaging (MRI) have made the diagnosis easy and accurate. Although surgery is the mainstay of treatment, radiotherapy (RT) and chemotherapy (CT) play a vital role, particularly in locally advanced tumours.⁴

AIMS AND OBJECTIVES:

1. To study the incidence of colorectal carcinoma in our institute.

2. To study the different clinical presentation of colorectal carcinoma.
3. To study the different modalities of treatment of colorectal carcinoma and follow up of patients at our institute.

MATERIALS AND METHODS: A prospective study of 72 patients of colorectal malignancy conducted during a period of 24 months (June 2013 – June 2015) in department of surgery, Rangaraya medical college, GGH, Kakinada.

RESULTS: In our institution total 72 patients of colorectal malignancy were included in the study. Maximum age incidence was between 41-50 years 21/72 patients (29%) followed by 51-60 years (20%).⁵ Male predominance is seen in this study with 43(59.7%) male patients and 29(40.28%) female patients.⁶ Altered bowel habits are the most common presentation (90.2%) followed by bleeding per rectum (58.3%). Acute intestinal obstruction seen in 29% of patients (Fig. 1). Loss of appetite and weight present in all cases⁷. (Table 1)

30(66.7%) patients with carcinoma rectosigmoid were diagnosed clinically with per rectal examination⁸ and proctoscopic examination⁹ which was later confirmed by the histopathological examination. Serum CEA levels raised in (90.6%) patients⁸ and levels reduced post operatively in 93.5% patients⁷. Lymph nodal metastasis seen in 63.8 % patients. Liver metastasis seen in 6.9% patients. 45 patients (62.6%) presented with rectosigmoid malignancy and 27 patients (37.4%) presented with colonic malignancy. X – ray erect abdomen detects acute intestinal obstruction in 29% patients. According to TNM staging 50% of the patients

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having stage III disease¹⁰ and 33.3% patients were having stage II disease¹¹(Table 3). According to Duke's stage, most of the patients were having Duke's stage C in 52.8%.¹² (Table 2)

The commonest histopathological type found was Adenocarcinoma (Table 4) in 98.6% of the patients in our study.^{13,3} Gastro intestinal stromal tumour (GIST) of the descending colon seen in one patient in our study.¹³ Out of the total 72 patients in our study, only 37 (51.39%) patients were resectable in initial evaluation and 35 (48.61%) patients were non resectable. Neo adjuvant treatment⁴ helps in down staging of the growth in 24 patients, who were non resectable in initial evaluation, and makes these patients resectable after completion of chemoradiotherapy. Anterior resection was the most common surgery (16 patients) followed by abdominoperineal resection (Fig. 2) (13 patients). Post-operative wound infection was found to be the most common morbidity, found in 14 patients (19.44 %). Post-operative mortality was found in 7 patients. Total 3 patients died during the follow up period of 6 months. Metastasis was noted in 2 patients and tumour recurrence was noted in one patient.

Presenting Complaints	Percentage
Bleeding PR	58.27
Altered bowel habits	90.22
Loss of weight and appetite	100
Pain in abdomen	55
Mass per abdomen	22.22
Obstruction	29

Table 1: Presenting complaint of colorectal carcinoma



Fig. 1: Carcinoma descending colon presenting as acute intestinal obstruction

Stage	Patients	Percentage
A	06	8.3
B	28	38.9
C	38	52.8
Total	72	100

Table 2: Dukes staging of colorectal carcinoma

Stage	Patients	Percentage
I	02	2.8
II	24	33.3
III	36	50.0
IV	10	13.9
Total		100

Table 3: TNM staging of colorectal carcinoma

Type of Neoplasm	Patients	Percentage
Adenocarcinoma	71	98.6%
Gist	01	1.4%

Table 4: histology of colorectal carcinoma



Fig 2: specimen of abdomino perineal resection for carcinoma rectum



Fig 3: ileo transverse anastomoses after right hemicolectomy for carcinoma ascending colon

DISCUSSION: The incidence of colorectal carcinoma in India have been estimated up to 4.3 and 3.4 /1,00,000 in males and females respectively.² Total 7731 cancer patients were admitted in the hospital during the period of 2 years, out of which 72 patients (0.93%) presented with colorectal malignancy. Total 236 gastrointestinal malignancies were admitted in GGH during the study period of 2 years. Out of 236 patients 72 patients admitted with the colorectal malignancy. Colorectal carcinoma (30.50%) was the second most common carcinoma of the gastrointestinal tract after carcinoma stomach (31.35%) in our institute.^{5,7}

The youngest patient reported in this study is 18 years of age while the oldest is of 82 years of age. The incidence of cancer increases with the age with maximum incidence found in the age group of 41 – 50 (29.17%) years of age.⁵ Male predominance is seen in this study with 43 (59.72%) male patients and 29(40.28%) female patients.¹⁴

The commonest presenting complaint in our study was altered bowel habits (90%). Next most common symptom was bleeding per rectum.⁷ Almost all the patients presented with either loss of weight or loss of appetite or both. 21 (29%) patients presented with acute intestinal obstruction in emergency ward in our study.⁹ It indicates large number of patients presented in advanced stage. 45 patients (62.6%) presented with rectosigmoid malignancy and 27 patients (37.4%) presented with colonic malignancy 33.33%.¹⁵ Liver metastasis in 7 (70%) patients and lymph nodal involvement in 18(45%) patients.^{10,12} In our study according to TNM staging 50 % of the patients having stage III disease and 33.33% patients were having stage II disease.¹¹ These findings suggest most of the patients presented in the advanced stage.¹⁶ This is due to lack of proper evaluation of the patients in initial stages, like bleeding per rectum attributed to benign conditions like piles,¹⁴ and these patients present in advanced stages to the hospital. In our study according to Duke's stage, most of the patients were having Duke's stage C i.e. 52.78%.¹²

The commonest histopathological type found was Adenocarcinoma in 98.61% of the patients in our study.^{13,3,12} Gastro intestinal stromal tumour (GIST) of the descending colon seen in one patient in our study.¹³ Out of the total 72 patients in our study, only 37(51.39%) patients were resectable in initial evaluation and 35(48.61%) patients were non resectable. Neo adjuvant treatment helps in down staging of the growth in 24 patients, who were non resectable in initial evaluation, and makes these patients resectable after completion of chemoradiotherapy.⁴ Anterior resection was the most common surgery (16 patients) followed by abdominoperineal resection (13 patients). Post-operative wound infection was found to be the most common morbidity, found in 14 patients (19.44 %). Post-operative mortality was found in 7 patients. Total 3 patients died during the follow up period of 6 months. Metastasis was noted in 2 patients and tumour recurrence was noted in one patient.

CONCLUSIONS: colorectal carcinoma incidence was more in the young age group compared to other malignancies. Male predominance was seen. More number of the patients presented with the advanced stage of the disease. Surgery was the most commonly used treatment with growths more common in lower third of the rectum. Most of the carcinoma rectum patients underwent sphincter saving procedures like anterior resection (40%) and low anterior resection. Neo adjuvant treatment helps in the sphincter preservation in some patients having growth in the lower third of the rectum. Serum CEA levels are useful in detecting the recurrence and metastasis of the disease during the follow up period.

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