



A CLINICO PATHOLOGICAL STUDY AND MANAGEMENT OF CARCINOMA COLON

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ABSTRACT

INTRODUCTION: Colorectal carcinoma is the third most frequently diagnosed malignancy as well as third most cancer related deaths. Survival rate for patients with colorectal cancers have not improved substantially in the past twenty years even with advances in the anaesthetic and surgical techniques, as majority of cases present at an advanced stage, curative resection is not possible and 5 year survival drops drastically. **THE AIMS OF THIS STUDY:** To Study the Age, Sex distribution and various Clinical Presentations Of Colorectal malignancies. **MATERIALS AND METHODS:** 62 cases of colorectal malignancies admitted in Surgical Units, from RIMS SRIKAKULAM and King George hospital between July 2013 to August 2015 were studied. Diagnosis was established using history, clinical examination, ultrasound, C.T. scan, colonoscopy and pathological examination. Operative details included a) site of tumor b) mobility c) presence of lymph node enlargement, and d) other visceral status. All resected specimens were preserved in 10% Formalin and sent for histo-pathological studies. **ANALYSIS AND RESULTS:** Number of cases included in my study were 62. Analysis of these cases with respect to distribution regarding age, sex, site of the tumor, clinical presentations and various surgical procedures done. Cancer involving the right colon is seen at a relatively earlier age than left colon and rectum. M: F = 2.8:1 Though there are no established extra risk factors for male, colorectal cancer more commonly seen in males compared to females. In this analysis male to female ratio is 2.8: 1. Most common presenting symptom - Bleeding per rectum. **Mode of presentation:** 16 percent of cases presented as an emergency. Majority of left side colonic cancers and all of the rectal cancers are presented with bleeding as the presenting symptom. Apart from bleeding they also have history of passing mucus in stools and tenesmus. Most common presentation of cancer involving caecum, ascending colon and hepatic flexure is altered bowel habit like constipation and diarrhoea with weakness and loss of weight some cases specially growth involving the hepatic flexure presented with obstruction. 4 cases with perforation both involving the sigmoid colon. Lesion in the sigmoid colon is usually a stricture involving in circumferential pattern. Among 62 cases followed in detail 52 cases diagnosed and planned for an elective procedure. 10 cases presented as emergencies and of which 6 cases with obstruction and 4 cases with perforation at the site of growth and peritonitis. All these patients have symptoms like weakness, pallor, loss of appetite and weight loss. Majority of the colorectal cancers are proliferative growths. Stricture type of growth is common in the sigmoid and rectosigmoid region though the lesions in the right colon are of proliferative type obstruction as the presentation is rare because of the liquid consistency of stool. Tumor stage (Dukes (Classification) stage A NIL cases, stage B-16 cases, stage -C 34 cases were identified. Among the 62 cases followed at Laparotomy in 16 cases the lesion found to be limited to the bowel wall. Majority of cases (54.8%) are presented at a stage where tumor already spread to paracolic and pararectal tissues and lymphnodes. In about 20% of cases distant metastasis to liver, peritoneum and omentum is seen. Nature of procedure : For 8 cases right hemicolectomy done, 4 cases left hemicolectomy, for 26 cases abdominoperineal resection done, for 3 cases anterior resection, 3- cases palliative resection, 7-Transverse colostomy, 4- cases sigmoid colostomy, 7- sigmoidectomy done. Of the 62 cases followed there were three deaths accounting for 4.8% mortality of which 2 cases presented for emergency surgery with fecal peritonitis and 1 case following APR. Cause of death post operative septic shock. **Follow up:** Of the cases followed for two years - four cases had local recurrence after 6 months, One case had bone secondaries after 6 months, three cases had liver secondaries after 6 months.

KEYWORDS : COLON, CARCINOMA, EPIDEMIOLOGICAL

INTRODUCTION

Colorectal carcinoma is the third most frequently diagnosed malignancy as well as third most common cause of cancer related deaths. Survival rate for patients with colorectal cancers have not improved substantially in the past twenty years even with advances in the anaesthetic and surgical techniques, as majority of cases present at an advanced stage, curative resection is not possible and 5 year survival drops drastically.

Because of the frequency of the disease, identification of high risk groups, demonstrated slow growth of primary lesion, better survival of early stage lesions and availability of wide range of screening tests, screening for colorectal cancer became a part of routine care for all above fifty years and for the high risk group even from an early age.

Application of Chemoradiation therapy pre and post operatively, also improved the survival of patients even with an advanced disease.

THE AIMS OF THIS STUDY

To Study the Age, Sex distribution and various Clinical Presentations Of Colorectal malignancies.

MATERIALS AND METHODS

62 cases of colorectal malignancies admitted in Surgical Units, from RIMS Srikakulam and King George hospital, Visakhapatnam between July 2013 to August 2015 were studied.

Diagnosis was established using history, clinical examination, ultrasound, C.T. scan, colonoscopy and pathological examination. Operative details included a) site of tumor b) mobility c) presence of lymph node enlargement, and d) other visceral status. All resected specimens were preserved in 10% Formalin and sent for histo-pathological studies.

Inclusion Criteria

1. cases of malignancy arising in appendix caecum ascending colon, transverse colon, descending colon, sigmoid colon and rectum.
2. cases of rectal malignancies involving both rectum and anal canal
3. cases presenting with complications of malignancy i.e., intestinal obstruction, perforation.

Exclusion Criteria

1. all malignancies involving anal canal alone

- all cases with primary tumor outside colon and rectum but involving them by local invasion

ANALYSIS AND RESULTS:

Number of cases included in my study were 62. Analysis of these cases with respect to distribution regarding age, sex, site of the tumor, clinical presentations and various surgical procedures done.

TABLE -1 SHOWING Age incidence

	No of cases	Percentage
20-29yrs	4	6.4%
30-39yrs	11	17.7%
40 – 49yrs	19	30.6%
50-59yrs	17	27.4%
60-69yrs	5	8%
>70 yrs	6	9.6%

Cancer involving the right colon is seen at a relatively earlier age than left colon and rectum. M: F = 2.8:1 Though there are no established extra risk factors for male, colorectal cancer more commonly seen in males compared to females. In this analysis male to female ratio is 2.8: 1. Most common presenting symptom – Bleeding per rectum. **Mode of presentation:** 16 percent of cases presented as an emergency. Majority of left side colonic cancers and all of the rectal cancers are presented with bleeding as the presenting symptom. Apart from bleeding they also have history of passing mucus in stools and tenesmus.

Most common presentation of cancer involving caecum, ascending colon and hepatic flexure is altered bowel habit like constipation and diarrhoea with weakness and loss of weight some cases specially growth involving the hepatic flexure presented with obstruction.

4 cases with perforation both involving the sigmoid colon. Lesion in the sigmoid colon is usually a stricture involving in circumferential pattern.

Among 62 cases followed in detail 52 cases diagnosed and planned for an elective procedure. 10 cases presented as emergencies and of which 6 cases with obstruction and 4 cases with perforation at the site of growth and peritonitis

All these patients have symptoms like weakness, pallor, loss of appetite and weight loss.

TABLE 2 - Showing Site of Tumor

	No. of cases	Percentage
Caecum and ascending colon	9	14.5
Hepatic flexure	2	3.2
Transverse colon	-	-
Splenic flexure & descending colon	2	3.2
xSigmoid colon	17	27.4
Rectum	32	51.6
Total	62	

Common site of growth - Rectum -51.6%

Among all the cases most common part of large bowel involved is rectum followed by sigmoid colon, caecum and ascending colon in that order

TABLE 3 - Showing Morphology of tumor

Type of growth	Caecum & ascending colon	Hepatic flexure	Splenic flexure & descending colon	Sigmoid colon	Rectum	Total	%
Proliferative	9	1	2	7	26	45	72.5
Stricture	-	1	-	10	4	15	24.1
Ulcer	-	-	-	-	2	2	3.2

Majority of the colorectal cancers are proliferative growths. Stricture type of growth is common in the sigmoid and rectosigmoid region though the lesions in the right colon are of proliferative type obstruction as the presentation is rare because of the liquid consistency of stool.

Tumor stage (Dukes (Classification) stage A NIL cases, stage B-16 cases, stage -C 34 cases were identified. Among the 62 cases followed at Laparotomy in 16 cases the lesion found to be limited to the bowel wall. Majority of cases (54.8%) are presented at a stage where tumor already spread to paracolic and pararectal tissues and lymphnodes. In about 20% of cases distant metastasis to liver, peritoneum and omentum is seen.

Nature of procedure : For 8 cases right hemicolectomy done, 4 cases left hemicolectomy, for 26 cases abdominoperineal resection done, for 3 cases anterior resection, 3- cases palliative resection, 7- Transverse colostomy, 4- cases sigmoid colostomy, 7- sigmoidectomy done. Of the 62 cases followed there were three deaths accounting for 4.8% mortality of which 2 cases presented for emergency surgery with feecal peritonitis and 1 case following APR. Cause of death post operative septic shock. **Follow up:** Of the cases followed for two years - four cases had local recurrence after 6 months, One case had bone secondaries after 6 months, three cases had liver secondaries after 6 months.

DISCUSSION

colorectal cancer patients stay asymptomatic until the disease reach an advanced stage and by the time they consult the surgeon only very few cases are resectable and so the 5 years survival is poor. Cases identified at early stage have an excellent prognosis. So high index of suspicion and early screening of the high-risk population we can certainly improve the oncologic and functional results as well as the 5 year survival of these patients.

TABLE 4 - SHOWING COMPARATIVESTUDY OF AGE INCIDENCE

S.NO	AGE GROUP	GOLIGHER 1171 CASES		PRESENT SERIES 62 CASES	
		NO	%	NO.	%
1	20-29	25	2.1	4	6.4
2	30-39	63	5.3	11	17.7
3	40-49	145	12.3	19	30.6
4	50-59	351	29.9	17	27.4
5	60-69	443	37.8	5	8
6	>70	144	12.2	6	9.6

Gholigher series demonstrates a peak incidence in 6th decades with maximum clustering in 5th and 6th decades. In this series , peak incidence in 5th decades and clustering in 4th and 5th decades. Patients age ranged from 21-75yrs^{2,3}

SEX INCIDENCE:

In this series, males showed higher incidence than females. Presentation in male patients was most common in 4th and 5th decades, whereas in females it is variable^{4,5}

SITE INCIDENCE:

TABLE 5: COMPARATIVE STUDY OF INCIDENCE IN RELATION TO SITE

SITE	GOLIGHER	MC.DER	BAILY&L	PRESENT
	R	MOTT	OVE	SERIES
CAECUM	101	148	12	4
ASENDING COLON	48	37	5	5
HEPATIC FLEXURE	29	95	2	2
TRANSVERSE COLON	77	30	3	-
SPLenic FLEXURE	50	80	3	1
DESCENDING COLON	45	313	4	1
SIGMOID COLON AND RECTUM	350	-	59	49

Majority of the cases were left sided malignancies with rectal tumors being the most common ones. Most common malignancy in both sexes is rectal malignancy.^{6,7} In males it is accounted to 24 cases and 8 cases in females of the total of 46 and 16 cases respectively. In this series females presented with left sided lesions more than right sided lesions. Most common presentation in this series was bleeding per rectum (61.2%) followed by altered bowel habits and other bowel complaints

PATHOLOGICAL EXAMINATION AND STAGING: Most common histological type in this series was adenocarcinoma occurring in about 59 cases with well differentiated variety appearing more commonly when compared to other grades of differentiation^{8,9}. Other histological types are squamous cell carcinoma (1), adenocarcinoma with carcinoid features (1), lymphoma (1).

TABLE 5: SHOWING COMPARATIVE STUDY OF STAGE PRESENTATION

STAGE		I	II	III	IV
NO.OF	GOLIGHER	144	342	499	-
CASES	PRESENT SERIES	-	16	34	12

POST OPERATIVE COMPLICATIONS AND FOLLOW-UP

During the follow up period 19 cases developed complications ,most common complication is wound infection (9 cases), recurrence (8 cases), colostomy prolapsed (1). One patient developed anastomotic leak which was conservatively managed. Of the 62 cases followed there were three deaths accounting for 4.8% mortality of which 2 cases presented for emergency surgery with peritonitis and 1 case following abdomino perineal resection.^{10,11,12}

CONCLUSIONS

In this study mean age at presentation is 40-60 yrs. Males are most commonly effected than females. Most of the cases present with short duration of symptoms. Bleeding per rectum is the commonest presenting symptom. Majorities of the cases are at in advanced stage by the time of diagnosis, where a curative resection could not be done. Curative resection done in 25% of cases. For most of the cases only palliative resection is attempted. Commonest site of growth was found to the rectum followed by sigmoid and right colon. The perioperative mortality is 4.8%. Appropriate dietary changes, regular physical activity, and maintenance of healthy weight, together with targeted screening programs and early therapeutic intervention could, in time, substantially reduce the morbidity and mortality associated with colorectal cancer.

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