

A Clinicomorphological Study Of Colorectal Carcinoma At Lahore General Hospital

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Forty cases of colorectal carcinomas were studied at General Hospital / PGMI, Lahore over a period of about one year. Maximum number of cases were in 50-59 years age group, showing male preponderance. The commonest presenting complaint of these patients was pain. Mean duration of presenting complaints was 6.65 months. Mean length of resected specimens was 30.17 cm. Twenty one tumours were along the left side of large bowel. Mean tumour size was 8.6 cm. On gross examination annular type lesions were the most common. On Periodic acid Schiff staining 30 (75%) carcinomas were found to be adenocarcinomas and 10 (25%) mucinous adenocarcinomas.

Key Words: Colorectal, carcinoma

Of all the colorectal diseases which are treated by surgery, carcinoma is the most important¹. It is the most frequent abdominal visceral malignancy and the second leading cause of cancer deaths in United States².

According to Pakistan Medical Research Council's report of multicentre study on the malignant tumours, Malignancies of the large intestine and rectum were sixth commonest malignancy in 1973-74 whereas it moved to ninth position in 1977-80³.

In a study conducted at Shaikh Zayed Hospital, Lahore, colorectal carcinoma was found to be the commonest malignancy of gastrointestinal tract⁴.

In different regional studies conducted in Pakistan, colorectal carcinomas accounted for 3.6% of all malignant tumours of the body in Northern areas⁵ whereas it was 7.43% in males and 3.8% in females in Faisalabad⁶.

The present study was carried out to document the clinicomorphological features of colorectal carcinomas in patients presenting at our institution.

Materials And Methods

A total of 40 cases of colorectal carcinoma who were operated upon and had resection done from January to December 1994 are included in this study. Clinical data was collected from patients during their admission in the surgical department of Lahore General Hospital. The resected specimens were fixed in 10% formol saline and processed in Pathology department. Detailed gross examination of each specimen was carried out. The representative tissue blocks were processed and paraffin sections were stained with Haematoxylin and Eosin and Periodic acid Schiff reagent.

Results

A total of 40 cases of colorectal carcinomas were studied over a period of one year. The ages of the patients ranged from 30 to 80 years. Most cases (13 cases, 34.15%) were between 50 to 59 years of age (Table.1). There were 21 males (52.5%) and 19 females (47.5%). The commonest presenting complaint was pain (38cases, 95%) (Table. 2). The mean duration of presenting complaints was 6.65± 3.0 months (Range one hour to 8 years).

Table 1: Age Distribution of Patients.

Age Group	n=	%age
30-39 years	08	20.00
40-49 years	07	17.50
50-59 years	13	32.50
60-69 years	06	15.00
70-79 years	04	10.00
80-above years	02	05.00
Total	40	100.00

Table 2: Various complaints of the Patients.

Complaints	n=	%age
Pain	38	95.00
Weight loss	25	62.00
Presence of mass	23	57.50
Constipation	22	55.00
Distention	21	52.50
Vomiting	16	40.00
Bleeding P/R	14	35.00
Fever	08	20.00
Diarrhoea	05	12.50
Incomplete sense of emptying	02	05.00
Altered bowel habits	02	05.00

N.B: Many patients had more than one complaints.

Table 3: Distribution of colorectal carcinoma.

Part of bowel	n=	%age
Caecum	08	20.00
Ascending colon	04	10.00
Hepatic flexure	05	12.50
Transverse colon	02	05.00
Splenic flexure	01	02.50
Descending colon	02	05.00
Sigmoid colon	07	17.50
Rectum	11	27.50
Total	40	100.00

The investigations carried out in these patients were haemoglobin estimation (40 cases, 100%), X-ray chest (38 cases, 95%), X-ray abdomen (27 cases, 67.5%), USG (22 cases, 55%), LFT'S (16 cases, 40%), preoperative biopsy (11 cases, 27.5%), barium meal (7cases, 17.50%) and stool C/E (3 cases, 7.5%).

The commonest surgical procedure performed in these patients was right hemicolectomy (19 cases, 47.5%) followed by abdomino-perineal resection (11 cases,

27.5%), left hemicolectomy (7 cases, 17.5%) and sigmoid colectomy (3 cases, 7.5%).

Twenty one tumours (52.5%) were along the left side and 19 (47.5%) along the right side of large intestine (Table 3). The mean length of resected specimens was 30.17 ± 14.41 cm. On gross examination annular type lesions were the commonest (13 cases, 32.5%) followed by sessile (12 cases, 30%), fungating (9 cases, 22.5%), ulcerating (5 cases, 12.5%) and polypoid (2 cases, 5.0%). Consistency was hard in 33 cases (82.5%) and firm in 7 cases (17.51%). The mean tumour size was 8.16 ± 2.99 cm.

On Periodic acid Schiff staining 30 cases (75%) were found to be adenocarcinomas, and 10 cases (25%) as mucinous adenocarcinomas. Table 4 and 5 give degree of differentiation and Dukes staging of colorectal carcinomas.

Table 4: Degree of differentiation of colorectal carcinoma (Histological grading)

Degree of differentiation	n=	%age
Well differentiated *	28	70.00
Moderately differentiated	07	17.50
Poorly differentiated	05	12.50
Total	40	100.00

*P < 0.001 as compared to others.

Table 5: Dukes staging* of colorectal carcinomas

Dukes staging	n=	%age
A - Cases	09	22.50
B - Cases**	21	52.50
C - Cases	10	25.00
Total	40	100.00

* Morson and Sobin 1976

**P < 0.05 as compared with A and C cases.

Discussion

In the present study, the predominant age group affected by the disease was 50 to 59 years. This is comparable to other studies from Pakistan, where peak incidence was found in 5th and 6th decades of life^{4,7}.

Male predominance for colorectal carcinomas was seen in the present study as was found by other workers^{6,10}.

The clinical manifestations of colorectal carcinomas are governed to a large extent by anatomic location and physiologic function of the bowel segment that bears the tumour¹¹. The commonest presenting complaint in our patients was pain as was found in the study by Recalde et al¹². According to DeDombal et al¹³ all patients over 50 years of age presenting to hospital with undiagnosed abdominal pain, should be investigated for colorectal malignancy unless an alternative cause is diagnosed.

The present study showed nearly equal distribution of the left and right sided lesions (21 vs 19). This is in accordance with Baloch⁷ who in his study also found equal number of right and left sided carcinomas. According to Dayal and DeLellis¹⁴ the right sided lesions predominate in countries where there is low prevalence of colorectal carcinoma. Studies from the West also suggest that incidence of carcinoma of right colon has increased significantly and that of sigmoid colon and rectum had decreased over the years^{15,16}.

With an increase in right sided lesions, screening for occult blood in the stool, colon roentgenograms and colonoscopy is gaining importance¹⁵. Different studies emphasize on the screening of the patients with large bowel disease for occult blood in the stools^{17,20}. According to Tate et al²⁰, a patient with symptoms of large bowel disease and a positive haemoccult test has a 50% chance of mucosal disease especially carcinoma and should be investigated. In the present study stool examination for occult blood was performed in only 3 cases of colorectal carcinoma and was positive in all the three cases.

Mean tumour size in the present study was 8.16 cm. Okuno et al²¹ found mean tumour diameter to be more than 5.1 cm in 54.4% of their cases. Other studies, however did not mention the tumour size. This may be due to the fact that tumour size has no prognostic value²².

No synchronous lesion was found in the present study. The rarity of synchronous lesions in this part of the world could be due to decreased incidence of colorectal adenomas as these are thought to be precursor lesions for colorectal carcinoma^{18,19}. Coexisting adenomas were not found in any of our cases of colorectal carcinomas.

On histopathological examination adenocarcinoma was the commonest type in the present study as was found in all studies dealing with colorectal malignancies^{4, 6, 8, 12, 21}.

On histological grading well differentiated lesions were the commonest in the present study (Table 4), as was found by Okuno et al²¹. However, Blekinsopp et al²³ and Ahmad et al⁴ found moderately differentiated lesions to be more common. Histological grading is a subjective phenomenon and prone to interobserver variation²³⁻²⁴. Therefore variation has been reported in different studies regarding histological grading of colorectal carcinomas. According to Thomas et al²⁴, wide discrepancies in diagnostic standards between pathologists regarding histological grading make it unreliable for assessing the treatment and prognosis of patients. Therefore instead of histological grading, staging of colorectal carcinomas is considered to be the most important determinant of survival after surgical resection²². On Dukes classification B type lesions were the commonest in the present study (Table 5), as was found by other workers^{4, 9, 10, 21}.

In conclusion, colorectal carcinoma is becoming one of the common causes of intestinal resection in our country. This study has highlighted the important clinicomorphological features of colorectal carcinomas.

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