

Colorectal Carcinoma Patients Clinical Presentation and Post-Op Complications: A Review of 5- Year Experience at a Tertiary Care Hospital

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1. Abstract

1.1. Background: Patients with inherited disorders have an increased prevalence of colorectal cancer. Additionally, it is linked to a history of adenomas, breast, ovarian, and endometrial malignancies, as well as Crohn's disease and chronic ulcerative colitis. Although the precise prevalence rate of colorectal cancer is unknown, hospital-based data may be used to examine the distribution of patients with the disease in Pakistan.

1.2. Objective: To find out clinical presentation and postoperative complications in patients with colorectal cancer.

1.3. Material & Methods: This cross sectional study was carried out at Department of General Surgery, Hayatabad Medical Complex Peshawar from January 2017 to December 2021. Total 52 patients diagnosed with colorectal cancers were included in the study. All biopsy proven colorectal carcinoma patients were enrolled in the study. Percentages were calculated for qualitative data like gender, age group, mode of admission, symptoms, location/site and stage of colorectal tumor, type of surgery performed and postoperative complications. Mean and standard deviation were determined for age. Student t-test and Chi square test were used to determine significance where appropriate.

1.4. Results: Total 52 patients were included in the study. Age ranged between 20-75 years with a mean age of 47.5 years. There were 38(73%) males & 14(27%) females. Age distribution was analyzed as 20(38.5%) patients belonged to age group 20-40 years, 18(34.6%) belongs to 41-60 years, while 14(26.9%) belongs to 61-75 years of age. Most common presenting symptom was bleeding per rectum 20 (38.5%) followed by sub-acute intestinal obstruction 12(23%), weight loss 8(15.4%), abdominal pain 5(9.6%), mucous anal discharge 5(9.6%) and abdominal mass 2(4.8%) respectively.

1.5. Conclusions: Patients in their third and fourth decades of life were more likely to have colorectal cancer, men were more likely to develop the disease than women. Rectum is the most prevalent location for tumours, bleeding per rectum is still the most common symptom encountered by colorectal patients..

2. Introduction

Worldwide, colorectal cancer is a leading source of morbidity and mortality. It ranks as the fourth most prevalent cause of mortality globally and the third most common cancer to be diagnosed [1]. Europe has the highest occurrence, whereas Asia and some regions of South America have lower incidences [2, 3]. Compared to developed countries, colorectal cancer incidence has been lower, but mortality is higher due to late presentation, ignorance, disease-related misconceptions, and poverty [4].

Patients with genetic diseases including familial adenomatous polyposis and hereditary nonpolyposis coli have an increased prevalence of colorectal cancer. Additionally, it is linked to a history of adenomas, breast, ovarian, and endometrial malignancies, as well as Crohn's disease and chronic ulcerative colitis [5, 6]. A rise in the number of colorectal cancer cases reported from our region in recent years [7]. Although the precise prevalence rate of this malignancy is unknown, hospital based data may be used to analyze the pattern of patients with colorectal cancer in Pakistan.

Aim of our research was to find out the postoperative complications, patient characteristics, and clinical presentation of colorectal cancer patients.

3. Material & Methods

This was cross sectional study conducted in the Department of Surgery, Hayatabad Medical Complex Peshawar, from January 2017 to December 2021. All biopsy proven colorectal carcinoma

patients were included in the study. Patients without histopathological evidence of colorectal carcinoma and who already had resections elsewhere, were excluded from the study. Patients underwent colonoscopy and computed tomography scans of abdomen with intravenous and oral contrast. Patients who had rectal tumor underwent Magnetic Resonance Imaging of pelvis to assess the tumor stage and the circumferential invasion. The patients who had tumors in lower third of the rectum and tumor stage >T2 were sent for neo-adjuvant chemo- radiotherapy and were restaged prior to surgery.

Data was collected on a specifically designed form. Variables noted were patients' biodata, mode of admission, clinical features, the operability status of the tumors, histopathology findings. Postoperatively, patients were observed for any bleeding, perineal wound infection, anastomotic leakage, postoperative ileus and postoperative intestinal obstruction. Patients after discharge were followed in the Out Patient Clinics on a weekly basis. They were assessed for stoma related complications, wound dehiscence, re-admission for any other complications (fistulae, stenosis etc) and recurrence of the primary disease.

Statistical analysis was done using SPSS version 27.0. Percentages were calculated for qualitative data like gender, age group, mode of admission, symptoms, location/site and stage of colorectal tumor, type of surgery performed and postoperative complications. Mean and standard deviation were determined for age. P-value was calculated for difference between the mean age of male and female patients in the study by t-test and chi-square test was applied to compare the gender frequency in the study population as well as amongst the age groups. P-value of ≤ 0.05 was considered significant.

4. Results

Total 52 patients were included in the study. Age ranged between 20-75 years with a mean age of 47.5 years. There were 38(73%) males & 14(27%) females. Age distribution was analyzed as 20(38.5%) patients belonged to age group 20-40 years, 18(34.6%) belongs to 41-60 years, while 14(26.9%) belongs to 61-75 years of age Table 1.

Most common presenting symptom was bleeding per rectum 20 (38.5%) followed by sub-acute intestinal obstruction 12(23%), weight loss 8(15.4%), abdominal pain 5(9.6%), mucous anal discharge 5(9.6%) and abdominal mass 2(4.8%) respectively Figure 1.

Most commonly involved site was rectum 15(28.8%) followed by ascending colon 13(25%), sigmoid colon 10(19.2%), descending colon 8(15.4%) & transverse colon 6(11.5%) respectively Figure 2.

Among different surgical procedures Rt hemicolectomy was the commonest 13(25%), following Abdominoperineal resection (APR) 10(19.2%), Lt hemicolectomy 8(15.4%), Hartmans proce-

dure 7(13.5%), anterior resection 6(11.5%), Diversion colostomy 4(7.7%) & Diversion ileostomy 4(7.7%) respectively Table 2.

Most common complication in our study was wound infection or organ space infection 7(13.5%) followed by ileus and bowel obstruction 5(9.6%), anastomotic leak 3(5.8%), stoma prolapse 3(5.8%), bleeding 2(3.8%) and ureteric ligation 1(1.9%) Table 3.

Stage IV tumors were the commonest tumours amongst all 20(38.5%), followed by stage III 15(28.8%), stage II 10(19.2%) & stage I tumour 7(13.5%) respectively Table 4.

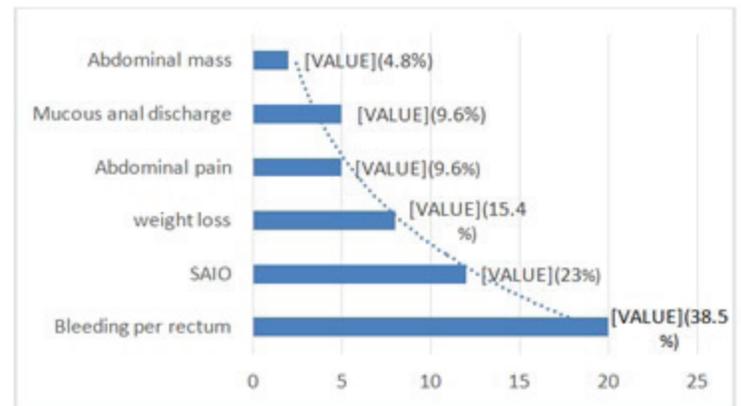


Figure 1: Presenting symptoms

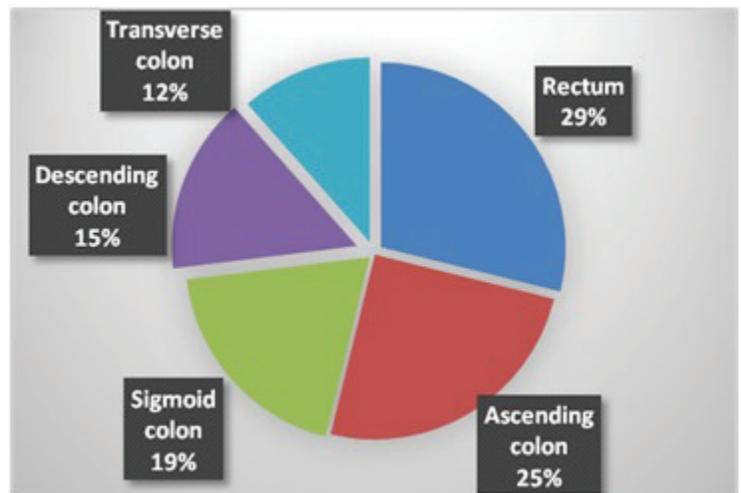


Figure 2: Site of tumour

Table 1: Gender & Age group distribution

Gender distribution		
Gender	Frequency	Percentage
Male	38	73%
Female	14	27%
Age group distribution		
20-40 years	20	38.50%
41-60 years	18	34.60%
61-75	14	26.90%

Table 2: Different types of procedure

Procedure	Frequency	Percentage
Right hemicolectomy	13	25%
Abdominoperineal resection	10	19.20%
Lt hemicolectomy	8	15.40%
Hartmans procedure	7	13.50%
Anterior resection	6	11.50%
Diversion colostomy	4	7.70%
Diversion ileostomy	4	7.70%

Table 3: Postoperative complications n=21

Complication	Frequency	Percentage
Wound infection	7	13.50%
Ileus and bowel obstruction	5	9.60%
Anastomotic leak	3	5.80%
Stoma prolapse	3	5.80%
Bleeding	2	3.80%
Ureteric ligation	1	1.90%

Table 4: Stage of tumour

Stage of tumour	Frequency	Percentage
Stage I	7	13.50%
Stage II	10	19.20%
Stage III	15	28.80%
Stage IV	20	38.50%

5. Discussion

In this study, we sought to assess the typical clinical signs and complications of surgical treatments carried out on patients with colorectal cancer. Our study's key findings were that young age males were impacted more frequently than was previously believed. The most frequent clinical symptom was bleeding per rectum and most patients had a poor prognosis when they first presented. According to Haroon N & Essel S et al the prevalence of colorectal cancer is rising generally and is more commonly affecting men than women [8, 9]. Our study also showed male predominance over females. Gender discrimination may be caused by a combination of genetic and environmental variables, including food, hormone exposure, reproductive history and desire to seek medical attention [10, 11]. The idea that colorectal Ca mostly concerns older age groups should no longer be taken seriously.

Kullavaujaya P & Agyemang YF [12, 13], showed that younger population was frequently affected particularly in the age group between 20-60 years which is similar to the results of our study. Common clinical presentation of colorectal carcinoma is bleeding per rectum. Other symptoms and signs include history of subacute intestinal obstruction, weight loss and abdominal pain, same was observed in our study.

Early diagnosis is important as delay in diagnosis may lead to dismal outcome. Usually younger age group patients coming to physicians are misdiagnosed as having hemorrhoids. Identifying and controlling the risk factors of colorectal carcinoma can minimize prevalence, death rate and also the cost of treatment. Acceptable screening program should be devised and implemented [14].

In early stages colorectal carcinoma is usually asymptomatic. Symptoms like blood in stool, abdominal pain, weight loss, altered

bowel habits and anemia should not be taken lightly and properly investigated. A study by Hamilton W et al suggested that earlier detection of colorectal carcinoma is possible by taking into consideration the above mentioned symptoms, coupled with digital rectal examination, and test like positive fecal occult blood [15]. Colonoscopy is the most accurate and widely used method for screening colorectal carcinoma.

In this study, American Joint Committee on Cancer (AJCC) classification was used for staging purpose and like our study other studies also concluded that colorectal carcinoma patients usually presents in stage III or IV [12, 13, 16]. In this advanced stage usually palliative management is done [17]. Patients presenting in early stages or where tumor resection is possible, definitive surgery is performed depending on anatomical site. Most commonly involved sites are descending colon and rectum [18, 19]. Low rectal tumors are more common. So more often abdominoperineal resection and where possible sphincter saving operation is performed, otherwise Hartman's procedure is recommended [20]. Right hemicolectomy was performed for the tumors involving ascending colon and cecum in our study.

In follow up main emphasis is made on detection of metastatic disease, the metachronous polyps, psychological support for the patients and also any complication related to disease and treatment. In our study wound infection and postoperative intestinal obstruction were the most common causes of re admissions following primary colorectal carcinoma surgery that is also reported in other study [21].

6. Conclusions

Surgical resection still remains the only curative therapeutic tool in patients with colorectal cancer. Patients in their third and fourth decades of life were more affected by colorectal carcinoma with male predominance. Bleeding per rectum remains the most common symptom. Rectum was the most common site of tumor. The multidisciplinary treatment therapeutic approach in patients with colorectal cancer is essential to make the proper treatment plan and achieve the best results.

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