

A Retrospective Descriptive Study of Pattern and Presentation of Colorectal Cancers in Shaikh Zayed Hospital Lahore Punjab, 2018-2021

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ABSTRACT

Aim: To determine the distribution of gender, age and clinical presentations along with histological type of colorectal cancer in patients presented to Shaikh Zayed Hospital Lahore.

Study design: This is a case series study

Methodology: This retrospective study on colorectal cancer was conducted in Shaikh Zayed Hospital Lahore. Forty-four 44 patients from Jan 2018 to Jan 2021 were included of colorectal carcinoma. Data were collected and analyzed using SPSS v 23 retrospectively from hospital record.

Results: 15.9% of the patients were below the age of 30 years, 31.8% were below 40 years. Male were 65.9%. Commonest presenting symptom was altered bowel habits, rectal bleeding along with weight loss and the dominating tumor grade was moderately differentiated adenocarcinoma.

Conclusion: In this study colorectal carcinoma among young age groups were more commonly present at the fourth and sixth decade.

Keywords: Colorectal carcinoma, Adenocarcinoma, Tertiary care hospital.

INTRODUCTION

Colorectal cancer (CRC) is classified as the third most common cancer in men and the second most common cancer in women¹. By 2020, approximately 147,950 people have been diagnosed with CRC and 53,200 have died from the disease, including 17,930 cases and 3,640 deaths among people under the age of 50².

Rapid increase in CRC events in the developing countries has recently been reported in the literature³ and refers to changes in the eating habits and patterns of activity raised in genetic predisposition⁴. Half of the CRC cases in Pakistan are more among young patients⁵. In this regard, along with the fact that more than 80% of the population of Pakistan is under the age of 40 years⁶, the number of "at risk" people in the beginning of the CRC in countries like Pakistan is the highest in the world. Inherited components increment the danger of advancement of colorectal disease; individuals with positive family ancestry in the main degree family members have two to three folds expanded danger than everyone else. However, more than half of all cases of death are caused by persistent risk factors, such as smoking, unhealthy diet, excessive alcohol consumption, weight loss and high BMI and thus can be prevented.⁷ CRC morbidity and mortality can also be reduced by doing critical screening and surveillance⁸.

CRC presents usually with rectal bleeding and tenesmus, a usual presentation of low rectal cancer⁹. To achieve sphincter preservation, preoperative screening is more important to treat cancer optimally¹⁰. Studies have shown that thorough workup should be done in younger age group to screen colorectal carcinoma presenting with altered bowel habits. Therefore, it is important for surgeons to recognize the potential cancer risk in young patients and to take aggressive approaches to early diagnosis and treatment of the disease¹¹. With this information, surgeons should have to individualize the care and treatment to each patient¹⁰.

Early symptoms of colorectal carcinoma by surgery but unfortunately these early symptoms are ignored by the patients itself or insufficiently investigated by the attending physicians.¹² Being a developing country, Pakistan has lot of health care problems. Authentic population-based studies aren't available properly on colorectal carcinoma in Pakistan. That's why Pakistan

aren't good on having high-risk factors of colorectal carcinoma. Surgeons have high solid impression that incidence of colorectal carcinoma is on the rise. In Pakistan it holds 25.4% malignancies in males and 20.1% of gastrointestinal malignancies in females¹³.

The objective of the study was to determine the distribution of gender, age and clinical presentations along with histological type of colorectal cancer in patients presented to Shaikh Zayed Hospital Lahore.

PATIENTS AND METHODS

This is a retrospective descriptive cross-sectional hospital-based study. After getting permission from Ethical Review Board, it included patients who presented with colorectal cancer to Surgical Unit II of Shaikh Zayed Hospital Lahore as elective cases in the period from January 2018 to January 2021. Total number of patients presented to the hospital with colorectal cancer was 44 patients and no age limitation was set to be the inclusion criteria of this study. All patients were selected by non-probability purposive sampling technique. Shaikh Zayed Hospital Lahore is a tertiary care hospital which accepts cases of gastrointestinal as well as other diseases from Punjab and all over Pakistan. Demographic data with their presenting symptoms of all patients were obtained. Also, the positive physical signs with positive relevant results of investigations were recorded. The management of such patients included maintaining good hydration and administration of antibiotics, intravenous fluids and surgical treatment. In anemic patient blood transfusion was also done. The nature of surgical procedure carried out depended upon the stage and the findings at the time of surgery. Patients were operated in the general surgical operation theater and the resection specimens were sent for histopathological examination and those having advanced disease sent for neo adjuvant chemo/radiotherapy. The data was fed in to and computed by SPSS 23.

RESULTS

There were 44 cases comprising of 29(65.9%) males and 15(34.1%) females with male to female ratio of 1:1.93. The most common affected age group was 31-40 years old having 14(31.1%) cases, followed by 51-60 years old having 10(22.2%) patients with no difference from 41-50 years old having 8(17.8%). There were 7(15.6%) patients in the age group of 21-30 years,

Received on 11-05-2021

Accepted on 03-11-2021

3(6.7%) patients were in the age group of 61-70 years and 2(4.4%) cases were in 71-80 years age group. Common clinical symptom was altered bowel habit which included 32(72.7%) patients followed by abdominal pain in 27(61.4%) patients and weight loss in 30(68.2%). Rectal bleed which was present in 28(63.6%) patients. Tumors which were found in colon are more frequently rectal tumors which are 23(52.3%) and 12(27.3%) respectively and synchronous lesions at rectal and colon are 9(20.5%). Colorectal tumors were present in 35(70%) patients and right sided in 15(30%) patients. On histopathology moderately differentiated adenocarcinoma was present in 39(88.6%) patients. A positive family history was seen in 2(4.5%) patients.

Table 1: Age distribution of patients (n=44)

Age (years)	No.	%
21-30 years	7	15.6
31-40 years	14	31.1
41-50 years	8	17.8
51-60 years	10	22.2
> 61 years	5	11.1
Mean±SD	45.23±12.39	

Table 2: Sex distribution of patients (n=44)

Sex	No.	%
Male	29	65.9
Female	15	34.1
M:F ratio	1:1.93	

Table 3: Sign and symptoms of patients (n=44)

Sign & symptoms	No.	%
Altered bowel habits	32	72.7
Abdomen pain	27	61.4
Gross rectal bleeding	28	63.6
Weight loss	30	68.2

Table 4: Site of tumors (n=44)

Site of Tumors	No.	%
Colonic	23	52.3
Rectal	12	27.3
Synchronous lesion	09	20.5

Table 5: Tumor grade pattern (n=44)

Grade patter	No.	%
Adenocarcinoma	43	97.73
Squamous cell carcinoma	1	02.27

DISCUSSION

Colorectal cancer (CRC) is the most common cancer in the world. CRC affects men and women of all races and ethnicities and is most commonly found in people 50 years of age or older in developed countries.¹⁴No age group has been exempted as colon adenocarcinoma had reported in a 9 month old girl. In our study the CRC in young aged 31-40years is 31.8% which is similar to a study by Ahmed et al¹⁵in Khartoum hospital which shows 35.4% of colorectal carcinoma patients were either 40 years of age or less than that. Data from the West confirmed that less than 20% of CRCs are under 50 years old but in another study from Iran 34.5% of patients were under 50 years of age.¹⁶CRC was found in patients 40 years of age or younger in 2-6% of CRC cases in France, Italy and Taiwan and 17-36% in Sudan Saudi Arabia and Iran.^{15,17}All these data indicate that colorectal cancer in Asia, the Middle East, and Africa is more common in young people than in Western lands. By Susan Ivey et al screening for Asians at a young age is recommended as they are found to have a higher risk of developing colon cancer at an early age.¹⁸Poor prognosis is associated with population younger than 40 years of age in patients affected with colorectal cancer.¹⁹Disease has rapid and aggressive propagation in young patients less than 40 years of age due to lymphatic metastasis as suggested by Dukes and Bussey.¹⁹Five year survival rate in young ones of 30 years old or younger is calculated only 25-30% as mentioned by Miyake et al and Bedikian et al.²⁰The need for early recognition of colorectal carcinoma in

young adults is emphasized by the high incidence of advanced disease and the high rate of treatment failure. However young patients with Duke's stage A or B have better 5 year survival rates if screened and detected in early ages.²¹ In our study male to female ratio is (1:1.93) which is comparable to study by other studies^{15,17,22}. However Guraya entered a different male to female ratio of (1:4).²³

One of the main symptoms of CRC, an altered bowel habit, was present in 72.7% patients nearly similar to study done in Peshawar.²⁴General practitioners usually labeled them as a case of chronic dysentery. Two studies on colorectal cancer have reported 35.71% and 30% patients have symptoms of altered bowel habits respectively.^{13,25} In our series of 44 cases 61.4% patients have pain abdomen as their chief complaint. Character of this pain was from gas cramps to dull constant ache only due to local invasion of this disease. In western lands pain abdomen is one of the common symptom at the time of presentation in young (>40 years) as well as in old age group.²⁶ Earliest and more constant symptom in colorectal cancer is rectal bleeding. There isn't anything trademark about the time at which it happen neither is the color or amount of the blood distinctive. 63.6% patients in our study presented with gross per-rectal bleeding which is closed to one study done in Peshawar.²⁴ Studies done in western countries showed per-rectal bleeding as a frequent and common presenting symptom. Above findings are comparable with other studies.^{26,27-32} A few studies conducted in Pakistan, strengthen our study as their results are comparable, on colorectal carcinoma showed that gross rectal bleeding occurred in 62.05%³¹, 62.7%²⁹ and 68.0%³⁰ of the patients.

Weight loss is also amongst presenting symptoms. Our study shows 68.2% patients complained of loss of weight. Ahmad et al in his study done at Shaikh Zayed Hospital Lahore reported weight loss in 62% patients.³¹Exact etiology of weight loss isn't clear. However, decreased oral intake, nausea, vomiting, anorexia, anxiety and malignant cachexia are amongst the contributing factors. No doubt the advanced disease is also a contributing factor to weight loss.

Payam³² reported a 2.5% positive family history of colorectal carcinoma compared to our group of 4.5% of the cases. Most common site of tumor origin in our study was colonic which is 52.3% while 27.3% were rectal origin. Pattern of tumor grade in our study is adenocarcinoma which is 97.67% and squamous cell carcinoma is 2.32% while further division in adenocarcinoma category is done which mainly showed moderately differentiated adenocarcinoma is 88.6% among study population then poorly differentiated which is 6.7%, in a similar study in Saudi Arabia³³ moderately differentiated was the most common followed by poorly differentiated adenocarcinoma.

CONCLUSION

Colorectal carcinoma among young age groups were more commonly present at the fourth and sixth decade. Altered bowel habits, gross rectal bleeding with weight loss and abdominal pain are the common presenting complaints in patients with colorectal carcinoma. One should have a high indication for suspected colorectal carcinoma when these features are present for a long time. Awareness on the potential for colorectal cancer in young people should be emphasized to all physicians. Further studies should be done to identify whether colorectal carcinoma affecting young population is due to regional factors or due to genetic factors.

Conflict of interest: Nil

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