ORIGINAL ARTICLE

Different clinical presentations of patients with Colorectal Cancer

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ABSTRACT

Aim: To determine the frequency of different clinical presentations of colorectal cancer

Methods: A total of 105 patients of both sex and of age 30-70 year, diagnosed as a case of colorectal cancer on CT scan abdomen confirmed on histopathology at stage I, II and stage III were included. Patients with previously treated for colorectal carcinoma were excluded. Case sheet patients were prepared for age & sex and symptoms of colorectal cancer (Bleeding per rectum, altered bowel habits, Anemia, weight loss**).**

Results: Mean age was 58.69±7.91 years. Out of 105 patients, 69(65.71%) were males and 36(34.31%) were females with male to female ratio of 2:1. TNM staging revealed 28(26.67%) patients with stage I, 33(31.43%) with stage II and 44(41.90%) with stage III carcinoma.The main presentation was rectal bleeding in 91(86.67%) followed by altered bowel habits in 76(72.38%), anemia in 35(33.33%) and weight loss in 26(24.76%) patients.

Conclusion: This study concluded that the rectal bleeding was the most common presentation of colorectal carcinoma and there was statistically insignificant difference of all clinical symptoms among different age groups, gender and stage of carcinoma

Keywords: Rectal, carcinoma, bleeding, anemia.

INTRODUCTION

Colorectal cancer, also known asrectal cancer, bowel cancer orcolon cancer is a cancer from un-controlled cell growth in therectum orcolon(parts of the large intestine), or in the appendix. Genetic analysis shows that essentially rectal and colon tumours are genetically the same cancer. Colorectal carcinoma is the 2nd most common cancer in women and 3rd most common cancer in men[1] affecting 9.7% population worldwide.[2]Its incidence is more common in developed as compared to developing countries. Greater than 75-95% of colon cancer occurs in people with little or no genetic risk.[3,4] Risk factors includemale gender, older age, red meat, high intake of fat,obesity, smoking, alcohol and a lack of physical exercise[3]. About 10% of cases are linked to insufficient activity[5]. The risk for alcohol appears to increase at greater than one drink per day[6].

Colorectal cancer is a common malignancy in developed countries but occurs much less frequently in the developing world. Worldwide in terms of incidence, colorectal cancers rank fourth in frequency in men and third in women[7,8]. Many symptoms have been described with the main ones being altered bowel habits, rectal bleeding, abdominal pain, weight loss and anemia[8,9]. However, these symptoms are also common with benign conditions, so the clinician

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has to select patients at higher risk for investigation. Most cases present with symptoms that prompt patients to consult their general practitioners[8,9,10].

There are variations in different studies conducting in evaluation of different clinical presentations. According to one study conducted in England, the most common presentation was bleeding Per Rectum (89%) and other presentations were; altered bowel habit (58%), weight loss (18%)[11]. In other study Colorectal cancer presents most commonly as with the symptoms of anemia (27%) and bleeding per rectum (11%)[10]. With reference of these statistical values, the rationale of my study was to see that what is the most common clinical presentation among bleeding per rectum, altered bowel habits, abdominal mass, anemia and weight loss.

MATERIAL AND METHODS

This cross sectional study was conducted at Department of Surgery Sheikh Zayed Medical College/Hospital Rahim Yar Khan from October 2014 to April 2015. Total 105 patients of both sex and of age 30-70 year, diagnosed as a case of colorectal cancer on CT scan abdomen confirmed on histopathology at stage I, II and stage III were included in this study. Patients previously treated for colorectal cancer were excluded from the study. An approval was taken from ethical review committee and written informed consent was taken from every patient.

Operational definitions of study variables:

Bleeding per rectum: Patient passing blood per rectum either mixed with stool or separate detected on stool examination.

Altered bowel habits: Patient having diarrhea or constipation alternatively for more than three months.

Anemia: Patient having hemoglobin level less than 10 g/dl detected on complete blood examination.

Weight loss: Patient's weight less than 10% of normal weight according to age and height; at time of presentation.

All the selected patients was examined for colorectal cancer (Bleeding per rectum, Altered bowel habits, Anemia, Weight loss). All the findings along with demographic profile of the patients were recorded in pre-designed proforma. All the data entered and analyzed by using SPSS version 17. Mean and SD was calculated for numerical variables. Frequencies and percentages were calculated for categorical variables. Chi-square test was used to see the association between different variables. P value ≤ 0.05 was considered as significant.

RESULTS

Age range in this study was from 30 to 70 years with mean age of 58.69±7.91 years. Out of 105 patients, 69(65.71%) were males and 36(34.31%) were females with male to female ratio of 2:1 (Fig. 1). TNM staging revealed 28 (26.67%) patients with stage I, 33 (31.43%) with stage II and 44(41.90%) with stage III carcinoma. (Fig. 2). The main presentation was rectal bleeding in 91 (86.67%) followed by altered bowel habits in 76 (72.38%), anemia in 35(33.33%) and weight loss in 26(24.76%) patients (Table 1). Stratification of carcinoma presentation with respect to age groups and gender has shown in Table 2 & 3 respectively which have shown no significant difference (p>0.05). Stratification of carcinoma presentation with respect to stage of carcinoma has shown in Table 4 which has also shown no significant difference (p>0.05).
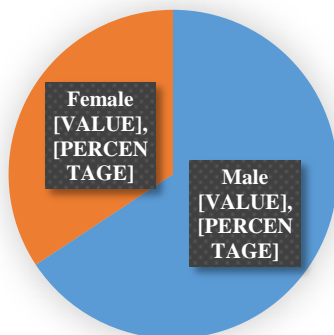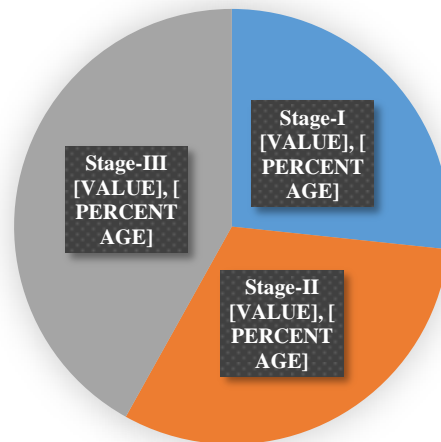
Fig. 1: Gender distribution

Fig. 2: Stage of carcinoma

Table 1: Presentation of colorectal carcinoma

Presentation	Frequency (%)	
	Yes	No
Bleeding per rectum	91 (86.67%)	14 (13.33%)
Altered bowel habits	76 (72.38%)	29 (27.62%)
Anemia	35 (33.33%)	70 (66.67%)
Weight loss	26 (24.76%)	79 (75.24%)

Table 2: Stratification of presentation of carcinoma with respect to age.

	30-50 years (n=35)	51-70 years (n=70)	P-value
Bleeding per rectum			
Yes	30 (85.71%)	61 (87.14%)	0.839
No	05 (14.29%)	09 (12.86%)	
Altered bowel habits			
Yes	26 (74.29%)	50 (71.43%)	0.758
No	09 (25.71%)	20 (28.57%)	
Anemia			
Yes	12 (34.29%)	23 (32.86%)	0.884
No	23 (65.71%)	47 (67.14%)	
Weight loss			
Yes	08 (22.86%)	18 (25.71%)	0.749
No	27 (77.14%)	52 (74.29%)	

Table 3: Stratification of presentation of carcinoma with respect to gender.

	30-50 years (n=35)	51-70 years (n=70)	P-value
Bleeding per rectum			
Yes	59 (85.51%)	32 (88.89%)	0.628
No	10 (14.49%)	04 (11.11%)	
Altered bowel habits			
Yes	50 (72.46%)	26 (72.22%)	0.979
No	19 (27.54%)	10 (27.78%)	
Anemia			
Yes	24 (34.78%)	11 (30.56%)	0.663
No	45 (65.22%)	25 (69.44%)	
Weight loss			
Yes	19 (27.54%)	07 (19.44%)	0.362
No	50 (72.46%)	29 (80.56%)	

Table 4: Stratification of presentation of carcinoma with respect to stage

	I (n=28)	II (n=33)	III (n=44)	P-value
Bleeding per rectum				
Yes	26(92.86%)	29(87.88%)	36(81.82%)	0.393
No	02(7.14%)	04(12.12%)	08(18.18%)	
Altered bowel habits				
Yes	21(75%)	22(66.67%)	33 (75%)	0.675
No	07(25%)	11(33.33%)	11 (25%)	
Anemia				
Yes	06(21.43%)	13(39.39%)	16(36.36%)	0.285
No	22(78.57%)	20(60.61%)	28(63.64%)	
Weight loss				
Yes	03(10.71%)	09(27.27%)	14(31.82%)	0.119
No	25(89.29%)	24(72.73%)	30(68.18%)	

DISCUSSION

In our study, mean age was 58.69 ± 7.91 years which is very much comparable to the study of Pomerri S et al[12] and Ather HM et al[13] who had also observed mean age of 61 and 58 years respectively. On the other hand, Dar RA et al[14] and Irabor DO et al[15] in their studies had found much lower mean age i.e. 53 % 50 years respectively. In our study, the males were affected more than females with ratio of 1.8:1 which correlates with some previous studies.[15-17] So, our study has shown that colorectal carcinoma was more common in males with increasing incidence with age. Age is a well-known risk factor for colorectal cancer, as it is for many other solid tumors. From 2005-2009, the median age at diagnosis for cancer of the colon and rectum in the US was 69 years of age. Approximately 0.1% were diagnosed under age 20; 1.1% between 20 and 34; 4.0% between 35 and 44; 13.4% between 45 and 54; 20.4% between 55 and 64; 24% between 65 and 74; 25% between 75 and 84; and 12% 85+ years of age[18].

In our study, rectal bleeding was found in 91 (86.67%), altered bowel habits in 76(72.38%), anemia in 35(33.33%) and weight loss in 26 (24.76%) patients. The most common presenting complaint observed in our study was rectal bleeding as was also found by Eltinay OF et al[17] and Ather HM et al[13] while Reis WD et al observed abdominal pain as the main presenting complaint (86.9%) followed by anorexia or weight loss (52.1%), diarrhea (52.1%), and rectal bleeding (21.7%). Ather HM et al[13] in his study has found rectal bleeding in 49.76%, altered bowel habits in 28.99%, anemia in 4.83% and weight loss in 24.40% patients

Al-Shamsi SR et al[19] in his study has shown pain in 81%, altered bowel habits in 72% and bleeding per rectum in 78% patients of colorectal carcinoma. According to one study conducted in England, the most common presentation was bleeding Per Rectum (89%) and other presentations were; altered bowel habit (58%), weight loss (18%)[11]. In other study Colorectal cancer presents most commonly as with the symptoms of anemia (27%) and bleeding per rectum (11%)[10]. Eltinay OF et al[17] in his study on 43 colorectal carcinoma patients had found sixteen (37.2%) cases with rectal bleeding, ten (23.2%) with abdominal pain, eight (18.5%) with altered bowel habits whereas anaemia was found to be the most frequent clinical result reported in twenty (46.4%) patients.

In a study done in Pakistan by Shaikh AR et al[20], bleeding per rectum was found in 60.0% and altered bowel habits in 30.0% patients. In another study done in Pakistan by GulA et al[21], bleeding per rectum was found in 66.0%, altered bowel habits in 86.0%, weight loss in 84.0%, abdominal pain in 84.0% and abdominal mass in 34.0% patients. Smith Det al[11] in his study has compared the clinical presentation of colorectal carcinoma according to the stage of the tumour. He concluded that in the early cancer group, 89% had rectal bleeding, 58% a change in bowel habit and 24% had abdominal pain, as compared to the advanced group, where abdominal pain ($P = 0.001$) and change in bowel habit ($P < 0.001$) were more common and reached significance. Systemic symptoms, decreased appetite and tiredness, were evenly distributed between both groups; though unexplained weight loss was not significant, there was a tendency towards this in the advanced colorectal cancers group ($P=0.17$). On the other hand, in our study, we had not found any significant difference in clinical presentations of colorectal carcinoma in different stages of cancer.

CONCLUSION

This study concluded that thefrequency of rectal bleeding was in 86.67% patients, altered bowel habits in 72.38% patients, anemia in 33.33% patients and weight loss in 24.76% patients with rectal bleeding being the most common presentation of colorectal carcinoma, and statistically insignificant difference of all clinical symptoms among different age groups, gender and stage of carcinoma.

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