STUDY OF CLINICAL PROFILE OF PATIENTS WITH COLORECTAL CANCER

Gastroenterology

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ABSTRACT

Background: Colorectal cancer (CRC) incidence and mortality rates vary markedly around the world with low reported cases in India. It is a lethal disease with high mortality. It has varied presentation from asymptomatic, anaemia, altered bowel habits to frank bleeding per rectum, intestinal obstruction. There are very few studies in India describing the clinical profile and risk factors of CRC.

Objective: To study Clinical profile and risk factors in patients with colorectal cancer.

Methods: A prospective single center study was conducted from August 2018 to August 2019. It included all patients who were newly diagnosed CRC. Their demographic profile, site of lesion, clinical presentations, risk factors, colonoscopic findings, histology of the lesion, biochemical analysis and imaging were performed.

Results: 32 patients with newly diagnosed CRC were evaluated. Mean age was 52.4 years. Male to female ratio was 1.5:1. Overall fatigue was the most common symptom (87.5%) followed by per rectal bleeding (37.5%). Fatigue was the most common symptom with right sided CRC while per rectal bleeding was the most common symptom with rectal CRC. Low fiber diet was most common risk factor (71.9%). Histologically adenocarcinoma was the most common type (90.6%).

Conclusion: Rectum was the most common site and adenocarcinoma was the most common histological type. Low fiber diet was the most common risk factor. Majority of the patients had localized or locally advanced disease observed in our study.

KEYWORDS

Colorectal cancer, clinical profile, adenocarcinoma.

INTRODUCTION:

CRC is the third most commonly diagnosed cancer in males and the second in females globally. According to the World Health Organization 1.8 million new cases and almost 8,61,000 deaths occurred in 2018 GLOBOCAN database. Incidence of CRC is higher in males than in females.[1] The incidence of CRC in India is less as compared to western world. The age standardized rate (ASR) for CRC in India is low at 7.2 per 100,000 population in males and 5.1 per 100,000 population in women.[2] Patients with CRC usually present with fatigue, abdominal pain, alteration of bowel habit, anorexia, bleeding per rectum and colonic obstruction.

Five-year survival of CRC is reported to be 40% in India. The CONCORDE-2 study reveals five-year survival of rectal cancer in India is decreasing[3] which may be attributed to difficulty in diagnosis, delayed presentation, inadequate treatment of CRC. There are very few studies conducted in Indian population regarding demography, clinical profile, risk factors, factors associated with poor survival. Large number of data on CRC is based on assumption which makes it difficult to make a valid conclusion. The profile of patients with CRC in India thus remains unknown. This study is an attempt to throw a light on baseline parameters and clinical profile of patients with CRC.

AIMS AND OBJECTIVES

To study clinical profile of CRC
To study risk factors of CRC

MATERIALS AND METHODS

A prospective observational study was conducted in patients with newly diagnosed CRC between August 2018 to August 2019. This study was approved by institutional ethical committee.

(a) Inclusion criteria:

Age group > 18 years
Patients willing to give informed consent for the study

(b) Exclusion criteria:

Age < 18 years

Colorectal polyp

Patients not willing to give informed consent

After obtaining informed consent patients were interviewed about age, height, weight, dietary pattern, detailed clinical history, presenting symptoms in the form of fatigue, exertional breathlessness, abdominal pain, abdominal distension, bowel habits, bleeding per rectum, abdominal lump, loss of appetite, loss of weight, personal history for smoking and drinking alcohol and family history of cancer was documented in proforma. Routine blood investigations, carcinoembryonic antigen (CEA), ultrasonography (USG), contrast enhanced computed tomography (CECT), magnetic resonance imaging (MRI) were performed. Colonoscopy was done with adequate bowel preparation with polyethylene glycol using – OLYMPUS scope.?

Sample size – 32 patients

RESULTS:

Table 1	
DEMOGRAPHIC PROFILE (N=32)	
Age (in years)	52.4 years (31-80 years)
Sex	Male: 19 (59.4%) Female: 13 (40.6%)
SYMPTOMATOLOGY	
Asymptomatic	3 (9.41%)
Symptomatic	
Fatigue	28 (87.5%)
Rectal bleeding	12 (37.5%)
Abdominal pain	7 (21.8%)
Weight loss	22 (68.7%)
Altered bowel habit	8 (25%)
RISK FACTORS	
Low fruit and fiber diet	23 (71.9%)
Non vegetarian diet	18 (56.3%)
Alcohol	12 (37.5%)
Smoking	9 (28.1%)
Family History	2 (6.3%)

SITE OF CRC	
Rectum	14 (43.8%)
Anal canal	2 (6.3%)
Sigmoid colon	8 (25%)
Right colon	6 (18.8%)
Transverse colon	2 (6.3%)
Left sided tumor	24 (75%)
HISTOLOGY	
Adenocarcinoma	29 (90.6%)
Signet ring tumor	3 (9.41%)
STAGING	
I/II	21 (65.6%)
III/IV	11 (34.4%)

A total of 32 patients were analysed. Mean age was 52.4 years (31-80 years). Male to female ratio was 1.5:1. Maximum number of patients were in the age group of 51-60 years (43.8%), followed by 61-70 years (25%), 15.6% in 41-50 years, 71-80 years had 9.4% patients and least number of patients were in age group of 31-40 years (6.3%). Low fiber diet was the most common risk factor in 71.9%, 37.5% of the patients had chronic alcohol use disorder and 28.1% had smoking as a risk factor, 6.3% had family history of CRC. Clinical features of patients with CRC included fatigue (87.5%), weight loss (68.7%), per rectal bleeding (37.5%), altered bowel habit (25%), abdominal pain (21.8%), anaemia with a haemoglobin level <10 gm/dl (69.8%) and fecal occult blood testing was positive in 56.2%. Fatigue was the most common symptom in patients with right sided CRC and rectal bleeding was the most common symptom in patients with rectal CRC.

The median CEA level was 6.8 ng/ml. Colonoscopy findings included involvement of rectum (43.8%), sigmoid (25%), anal canal (6.3%), transverse colon (6.3%), right colon (18.8%) and left sided colonic involvement in 75%. Most common histological type was adenocarcinoma (90.6%). Majority of the patients (65.6%) had localized or locally advanced disease.

DISCUSSION

CRC is more common cancer in developed countries. India has a low prevalence with five year prevalence of 87 per 100,000 population. It is suggested to be low due dietary patterns and lifestyles, under reporting in India which cover only 7.45% of registries, while worldwide cancer registries cover 21% of the population.[4]

According to the data from the 2011 census, 29.5% of the population is in the age group 0-14, 62.5% of the proportion is in the age group 15-59 years, and the percentage of elderly population above 60 years is 8.0%.[5] The median age of India's population is around 25 years.[6] The average life expectancy is 68 years.

In our study male to female ratio was 1.5:1. Maximum number of patients were in the age group of 51-60 years (43.8%), followed by 61-70 years (25%), 41-50 years accounting for 15.6%, 71-80 years had 9.4% patients and least number of patients were in age group of 31-40 years (6.3%) which was consistent with studies of Al-Samawi et al.[7] Studies have shown an association between CRC and a diet high in red meat and low intake of fiber in the form of fruits and vegetables. In our study majority (56.3%) of the patients were taking meat regularly in their diet. Similar outcomes were established by Chan et al. [8], Larson et al. [9], Sandhu et al. [10] and Cross et al. [11] Dietary modifications may play a role in prevention and have an impact on reducing CRC related mortality. [12,13]

In our patients, the commonest symptom was fatigue (87.5%) followed by weight loss (68.7%), rectal bleeding (37.5%), altered bowel habit (25%), abdominal pain (21.8%). Most studies have reported similar symptoms with CRC. [14-16]

Left-sided tumors are more likely to present with overt bleeding per rectum and pain and become symptomatic early. It is uncertain whether increased proportion of left-sided tumors is a referral bias or whether rectal cancer is truly more common than colon cancer in India. In our study, majority were left-sided tumor, the commonest primary site being rectum (43.8%) followed by sigmoid colon (25%), right colon (18.8%) and anal canal (6.3%), Similar findings have been reported in other Indian studies.[17,18]

CONCLUSION

CRC was found to be more common in males, fatigue was the overall

most common symptom followed by rectal bleeding in left sided CRC. Rectum was the most common site and adenocarcinoma was the most common histological type observed in our study. Lack of awareness, neglecting symptoms, lack of screening programs are responsible for late presentation and advanced stage. Public awareness through mass-media, screening of high-risk populations, early diagnosis, cost-effective multi-modality treatment and regular follow-up is essential for limiting the morbidity and mortality.

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