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RISK ASSESSMENT OF INFLAMMATORY BOWEL DISEASE IN DEVELOPMENT OF INTESTINAL MALIGNANCIES AND PATIENT'S ATTITUDE

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ABSTRACT

Background: Patients with inflammatory bowel illness are more likely to develop colorectal carcinoma and small bowel adenocarcinoma, two types of gastrointestinal tract cancer. Due to lack of timely presentation, proper diagnosis, poor followup, non-compliance towards the instructions provided by the physicians and self-medication that provides temporary relief to the pain and symptoms of the disease the patients with IBD report to appropriate physician in late stages which increases the risk for the development of the intestinal cancer.

Objective: To determine the risk factors associated with development of intestinal cancers in which IBD was a precursor.

Methodology: This cross-sectional research was done in a tertiary care healthcare setup of Karachi. All the admitted and out patients diagnosed with any intestinal cancers were approached from January - August 2024. A detailed proforma was designed to assess the history of the patients. To get the retrospective data available in the patient data entry system permissions were obtained from the authorities. Patients who were alive and given permission to access the data and use it for the current study were interviewed according to developed proforma and data was gathered.

Results: When the files of the patients were accessed to identify the related predisposing factors, it was identified that out of twenty-two five patients (5/22 = 22.7%) were reported to have IBD 3 (3/5 = 60%) had CD, and 2 (2/5 = 40%) had UC. Among the most common symptoms associated with IBD there was frequent abdominal pain, diarrheal episodes, bloody stools and constipation.

Conclusion: The pervasiveness of male patients with colon and rectal cancer was highlighted in the study. Self-medication behaviors offer considerable hazards by delaying necessary medical care, highlighting the critical need for educational efforts directed at people with chronic gastrointestinal diseases.

Keywords: Risk factors, Inflammatory bowel disease, intestinal malignancies, patient`s attitude

INTRODUCTION

Inflammatory bowel disease (IBD), which has two subtypes: Crohn's disease (CD) and ulcerative colitis (UC), is characterized by persistent intestinal inflammation[1]. However, it has long been recognized that inflammation in IBD is not limited to the intestine and can develop in a variety of extraintestinal locations[2]. Cancer is the world's second largest cause of mortality (after cardiovascular disease); it is anticipated that one in every two people will develop cancer throughout their lifetime[3]. Given the prevalence of these two disorders, simultaneous occurrence does not suggest correlation. However, the notion of inflammation causing cancer growth is well known. Considering his findings of leukocytes within cancer tissue, German pathologist Rudolf Virchow propose a causal relationship between inflammation and tumor growth[4].

It has been documented that Patients with inflammatory bowel illness are more likely to develop colorectal carcinoma and small bowel adenocarcinoma, two types of gastrointestinal tract cancer. There is an elevated risk with both CD and UC, with UC posing a larger risk. It has also been demonstrated more recently that individuals with IBD have a higher chance of getting extraintestinal cancers, such as lymphomas and skin cancers[5]. According to recent studies, Pakistan is seeing an increase in IBD cases, which is consistent with worldwide trends seen in other Asian nations. A specialist IBD clinic reported the registration of 270 patients from June 2016 to August 2023. The study highlights the growing awareness and diagnosis of the condition among medical professionals. However, there are still significant obstacles since there are insufficient comprehensive epidemiological data and little resources available for specialist care[6].

It has been reported that due to lack of timely presentation, proper diagnosis, poor followup, non-compliance towards the instructions provided by the physicians and self-medication that provides temporary relief to the pain and symptoms of the disease[7, 8], the patients with IBD report to appropriate physician in late stages which increases the risk for the development of the intestinal cancer[9] hence, the current study was conducted to determine the risk factors associated with development of intestinal cancers in which IBD was a precursor.

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METHODOLOGY

This cross-sectional research was done in a tertiary care healthcare setup of Karachi. All the admitted and out patients diagnosed with any intestinal cancers were approached from January - August 2024. A detailed proforma was designed to assess the history of the patients. To get the retrospective data available in the patient data entry system permissions were obtained from the authorities. Patients who were alive and given permission to access the data and use it for the current study were interviewed according to developed proforma and data was gathered. The data was entered in the SPSS v.24 and analyzed by chi-square test to generate the associations. The study got approval from the IRB of the institute and protocol number was allotted.

RESULTS

From January to august 2024 there were 22 patients admitted/visited the oncology ward due to malignancy of the intestine. Predominantly males were the affected population, among all the types adenocarcinoma particularly involving colon and rectum was high in prevalence. Weight loss, nausea and vomiting and abdominal pain were the most frequent symptoms reported by the study participants. When the files of the patients were accessed to identify the related predisposing factors, it was identified that out of twenty-two five patients (5/22 = 22.7%) were reported to have IBD 3 (3/5 = 60%) had CD, and 2 (2/5 = 40%) had UC. Among the most common symptoms associated with IBD there was frequent abdominal pain, diarrheal episodes, bloody stools and constipation. The most common factor that patients mentioned who were suffering from IBD was self-medication and consuming the herbal medicine (Phakki etc) that provided them temporary relief and they reported late to the hospital and ultimately the condition worsened to malignancy. It was reported by the patients who had IBD as percussor that they wasted their time on self- medication, believing on

temporary relief and consumption of traditional medicine (p-value < 0.05) (Table 2).

Table 1. Gender distribution, Type of cancer, duration of treatment and reported symptoms of the patient at the time if diagnosis (n=22)

Gender Distribution [Frequency (%)]	
Male	13 (59.1%)
Female	9 (40.9%)
Type of cancer [Frequency (%)]	
Adenocarcinoma	17 (77.2%)
Lymphoma	3 (13.6%)
Sarcoma	2 (9%)
Duration of treatment (Mean ± SD) in months	
Adenocarcinoma	14.2 ± 3.1
Lymphoma	5.5 ± 1.4
Sarcoma	2.9 ± 0.98
Symptoms at the time of presentation [Frequency (%)] n= 22	
Abdominal Pain	19 (86.3%)
Nausea and Vomiting	21 (95.5%)
Weight Loss	22 (100%)
Fatigue	16 (72%)
Dark Colored Stools	18 (81%)
Anemia	14 (63.6%)
Jaundice	10 (45.5%)

Table 2. Factors responsible for late reporting for appropriate management

Factors	All the diagnosed patients n=22		p-value	Patients with history of IBD n=5		p-value
	Yes	No		Yes	No	
Self-medication	18	4	0.009	5	0	-
Use of traditional medicines (Phaki/powder etc)	14	8	0.001	4	1	0.001
Visited General practitioner	20	2	0.001	5	0	-
Used Over the counter available medicines	21	1	0.001	4	1	0.001
Visited (Molvi/Hakeem/Compounder)	16	6	0.045	4	1	0.001
Trusted on temporary relief	21	1	0.001	5	0	-
Did you realize getting symptoms again and again may have some consequence?	17	5	0.010	3	2	0.044

DISCUSSION

From January to August 2024, there was a noticeable trend in the oncology ward in terms of gastrointestinal cancers, notably colorectal tumors. This discussion will look at the demographic features, prevalence of certain cancer kinds, presenting symptoms, and related risk factors for patients hospitalized during this time period. The data show a considerable male predominance, with adenocarcinoma of the colon and rectum being the most common cancer. Furthermore, the function of IBD as a risk factor and the influence of patients' self-medication behaviors will be thoroughly investigated. According to the data, the vast majority of the 22 patients hospitalized for intestinal cancers were male. This is consistent with previous evidence, which suggests that men have greater

incidence rates of colorectal cancer than women[10]. According to the American Cancer Society, males have a lifetime chance of having colorectal cancer of around 1 in 23, which is significantly greater than that of women (1 in 25)[11].

The incidence rate for colorectal cancer has been reported as 36 per 100,000 people in various studies, with men having a higher prevalence of 42 per 100,000. Adenocarcinoma, which mostly affects the colon and rectum, was shown to be the most common kind of intestinal malignancy in this patient population[12]. This is consistent with wider epidemiological trends, which place colorectal cancer as one of the most frequent malignancies worldwide. Colorectal cancer is the third most often diagnosed cancer in both men and women in the United States[13]. On admission, the research participants reported numerous common symptoms, including weight loss, nausea and vomiting, and abdominal discomfort. These symptoms are typically connected with colorectal cancer and have a substantial impact on a patient's quality of life. In particular, unexplained weight loss and stomach discomfort are key symptoms that demand additional assessment for possible malignancies[14].

Additional symptoms observed in IBD patients include recurrent stomach discomfort, diarrheal bouts, bloody stools, and constipation. The link between IBD and colorectal cancer is well-documented; patients with illnesses such as Crohn's disease (CD) and ulcerative colitis (UC) are at a higher risk of developing colorectal cancer owing to chronic inflammation[15]. This study revealed a notable finding: 22.7% (5 out of 22) of patients had a history of IBD. Of these individuals, 60% had Crohn's disease, and 40% had ulcerative colitis. The relationship between IBD and colorectal cancer is crucial; persistent inflammation associated with both illnesses can cause dysplastic alterations in the intestinal epithelium over time[16].

The role of self-medication was especially alarming for these individuals. Many people reported turning to natural remedies or over-the-counter drugs for symptom alleviation instead of seeking prompt medical attention. This technique frequently delays diagnosis and treatment, potentially enabling disease progression to malignancy[17, 18]. The patients stated that their dependence on transitory relief from self-medication led to their delayed arrival at healthcare institutions. Self-medication among IBD patients has been reported in several research as a substantial impediment to efficient healthcare treatment[19]. Patients frequently assume that traditional or herbal medicines provide appropriate symptom management; nevertheless, this assumption can lead to negative results if severe illnesses like cancer are ignored[20, 21]. Statistical analysis found a p- value less than 0.05 for the association between self-medication practices and delayed hospital visits, indicating a statistically meaningful correlation in this small sample size; nonetheless, there is still a troubling tendency that requires more examination.

CONCLUSION

The prevalence of male patients with colon and rectal cancer highlights ongoing public health issues in terms of screening and early detection techniques. Furthermore, the link between IBD and the development of cancer highlights the need for increased surveillance among afflicted persons. Self-medication behaviors offer considerable hazards by delaying necessary medical care, highlighting the critical need for educational efforts directed at people with chronic gastrointestinal diseases. Future research should focus on bigger cohorts to better understand these dynamics and create focused methods for improving patient outcomes in the effective management of intestinal cancers.

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