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Research Article

**FACTORS ACCOUNTABLE FOR POSTPONEMENT IN
TREATMENT AND DIAGNOSIS OF COLORECTAL
CARCINOMA**¹Dr. Shahzeb, ²Dr. Manzar Ameen, ³Dr. Muhammad Shoaib Younas¹Allama Iqbal Medical College Lahore / Jinnah Hospital Lahore²Allama Iqbal Medical College Lahore / Jinnah Hospital Lahore³Allama Iqbal Medical College Lahore / Jinnah Hospital Lahore**Article Received:** August 2020**Accepted:** September 2020**Published:** October 2020**Abstract:*****Aim:** To investigate the various factors responsible for delays in the diagnosis and treatment of colorectal cancer.****Place and Duration of study:** In the Surgical Unit-II of Jinnah Hospital, Lahore for one-year duration from May 2019 to May 2020.****Study design:** Descriptive case series study.****Methods:** A study of 110 patients with various symptoms but ultimately diagnosed with colorectal cancer was conducted to see delaying factors. Patient demographics and various factors responsible for delayed presentation, including socioeconomic status, illiteracy, unbelief, spiritual healers, quacks, delayed referrals from general practitioners, and inadequate evaluation of consultants were statistically analyzed in SPSS version 16. For multivariate analysis, the ANNOVA for age and Fischer's exact test for gender, literacy and place of residence were used, and a p value of <0.05 was considered significant.****Results:** Delay in diagnosis and treatment of colorectal cancer was found in 56.2% of cases. The overall mean delay in diagnosis was 167 + 21 days, with 114 +10 days relating to patient seeking. The physician delay was 48 +19 days and the hospital / administrative delay was 15 + 7 days. Young (p-value 0.015) rural low-socioeconomic patients (p-value 0.007) with misconception were more likely to experience patient-related delays.****Conclusion:** The delay in seeking adequate medical care appeared to be psychosocial at the patient level, with neglect at the physician level rather than the failure to treat colorectal cancer in institutions.****Key words:** colorectal cancer, diagnosis, delaying factors.***Corresponding author:****Dr. Shahzeb,**

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INTRODUCTION:

Colorectal cancer is the fourth leading cause of cancer death in the world and a major global health problem as its incidence continues to increase. Survival varies by stage at diagnosis, with 5-year survival dropping from almost 90% for early cancer (Dukes A) to 15% for advanced cancers when only palliative measures are possible. Early diagnosis of colorectal cancer with no known genetic predisposition is a challenge, and the clinical-pathological features at the time of presentation are not well understood. Risk factors for delays in the occurrence of colorectal cancer and the possible impact of delayed diagnosis of colorectal cancer on survival have been a subject of much interest and controversy for many years. Accordingly, there is a need to understand the diagnostic process and identify risk factors for increasing the time to reporting and treatment in order to improve outcomes. Two methods of early diagnosis have been proposed: diagnosis of a tumor in the asymptomatic period and, secondly, reduction of diagnostic delay. Although various screening programs have been developed for this purpose, there is no consensus on which other factors may be associated with advanced stages of colorectal cancer. 7-11 This delay is associated with a variety of factors, ranging from the patient's lack of recognition of worsening symptoms to delayed in-house diagnostic intervention. Delayed diagnosis of colorectal cancer can occur as a result of patient delays in practitioners, including delayed quacks and hospitalization. Thus, if survival is to increase, greater knowledge of the factors contributing to these phases is required. We conducted this study to carefully evaluate the factors responsible for delayed diagnosis of colorectal cancer with the aim of reducing the number of delays in diagnosis and the diagnosis of these factors.

PATIENTS AND METHODS:

This study was conducted at the Surgical Unit-II of Jinnah Hospital, Lahore for one-year duration from May 2019 to May 2020. The study included 100 out of 196 consecutive patients who were eventually diagnosed with colorectal cancer. Previously diagnosed cases, but those left untreated, were not included in the study. Patients coped with other intuitions and introduced us to any stage and reason they were also excluded from the study. Along with demographic details, primary symptoms along with duration were filled in on the questionnaire during a face-to-face interview with the patient and / or

caregiver. A delay was defined if more than 3 months elapsed from the time the initial symptoms were clearly established to the time of histopathological diagnosis of colorectal cancer. This delay was considered the dependent variable and was analyzed by three components with the following independent variables:

1. Patient-related delay: ingestion of irrelevant symptoms, fear of diagnosis or research related to cancer, misconceptions, socioeconomic problems, and self-diagnosis or medications.
2. Practice delays: improper examination by GPs, quacks and consultants, misdiagnosis and inappropriate referral.
3. Administration delay: extended endoscopy / biopsy time, histopathological reports or unclear reports, false negative results

Descriptive data of all 110 patients were analyzed in the SPSS 16.0 version. In the case of qualitative variables, frequencies and percentages were used to assess the strength of association. For quantitative variables, the mean + SD was used. Chi-square test was used to compare the percentages and the significance level was set at $p < 0.05$. Multivariate data analysis was also performed to assess the strength of the relationship using the ANNOVA test for age and Fisher's exact test for gender, literacy, and residence status.

RESULTS:

A total of 9,016 surgical patients were admitted, 196 of whom were with colorectal cancer with a relative incidence of 2.18%. Eighty-six cases of non-meeting criteria were excluded, and the study enrolled 110 cases, 73 men and 37 women in a 2: 1 ratio. Thus, a delay in diagnosis occurred in 56.2% of patients. The mean age of the patients was 47.62 +1.59 years, and 21 (19.1%) patients were under 40 years of age with a minimum age of 11 years. Ninety-two (83.6%) patients reported to the surgical outpatient clinic and 18 (16.4%) were admitted to the ER. 73 (66.36%) came from rural areas, and 37 (33.64%) from cities. Sixty-six (60%) were literate with 10 (9.1%) above graduation. The primary symptom at presentation was hematochezia 71 (64.5%), then abdominal weight 51 (46.4%) and pressure 43 (39.1%). Sixty-three (57.3%) patients were Duke C and D. Cancer of the left colon occurred in 64 (58.2%) patients. Adenocarcinoma was the main variant only in 108 (98.2%) cases, including 18 (16.7%) poorly differentiated cancers (Table 1).

Table1. Demographic and Descriptive variables

Variable	N	%age
Residence		
Rural	73	66.34
Urban	37	33.66
Literacy		
Literate	66	60
Illiterate	44	40
First symptoms		
Hematochezia	71	64.5
Tenesmus	43	39.1
Change in bowl habit	41	37.3
Mass abdomen	51	46.4
Obstruction	16	14.5
Peritonitis	02	1.8
Tumour location		
Right colon	39	35.5
Transverse colon	07	6.40
Left colon	64	58.2
Dukes stages		
A	17	15.4
B	30	27.3
C	32	29.1
D	31	28.2

The overall mean delay in diagnosis was 167 ± 21 days, with 114 ± 10 days for patients. The physician delay was 48 ± 19 days and the hospital / administrative delay was 15 ± 7 days. SH: A spiritual healer. Tests used: ANOVA for age, Fisher's exact value for gender, country status versus city status, and literacy * indicates significance. Patient-related delay was the major (75%) predictor of the delay and the factors responsible were misconceptions about cancer treatment 49 (44.5%) followed by self-medication observed in 22 (20%) patients as shown in Table 2. Multivariate analysis showed that the country factor was significant (p-value = 0.007) in patient-level delay.

Table 2: Delaying factors in presentation of colorectal carcinoma

Variables	N	%	P value
At patient level			
Misbelieves /consultation from SH / quacks	49	44.5	Multivariate associations: Age (0.567) Sex (0.163) Rural (0.007*) Literacy (0.101)
Self-medication	22	20.0	
Socioeconomic factor	18	16.4	
Non-recognition of seriousness of symptoms	10	9.1	
Lack of sense of cancer	9	8.2	
None	2	1.8	
At practitioner level			

Non-recognition of cancer	38	34.5	Age (0.015*) Sex (0.178) Rural (0.396) Literacy (0.692)
Insufficient examination	26	23.6	
Delayed referral	26	23.6	
Improper referral	15	13.6	
None	5	4.5	
At hospital level			
Delay in investigations	22	20.0	Age (0.968) Sex (0.479) Rural (0.165) Literacy (0.666)
Delayed appointment for endoscopy	07	6.4	
Improper counseling	17	15.5	
None	64	58.2	

Of the total delay, 52% can be attributed to spiritual healers, healers, and general practitioners. The main factor was the undiagnosed cancer (34.5%) followed by incorrect examination (23.6%) at the doctor's level. Age was a significant variable in the multivariate analysis (p -value = 0.015). Although 68 (62%) of the patients showing a delay were over 40 years of age, 35 (48%) over 50 were male (p -value = 0.012). The hospital-related delay was 12% and the longer study period was the major (22%) delay factor.

DISCUSSION:

The incidence of colorectal cancer in our society is steadily increasing and its burden on our health care system has increased. Countless medical efforts to control the disease remain fruitless as most cases are advanced. The benefits of early diagnosis are well known. Understanding the factors that delay diagnosis of colorectal cancer is the first step in reducing it. Delayed treatment appears to be a multifactorial problem. In all common neoplasms, the nature of the symptom predicts a delay in presentation. If the symptom is more serious or worrying, the risk of delayed presentation is reduced as observed in the literature. The situation is completely different in our environment as 71 (64.5%) of our patients noticed hematochezia but reported too late in the advanced stages. This is usually due to a lack of awareness of cancer symptoms, as reported by Pobb *et al.*, Which is in line with our observation that 41 (37.3%) patients were completely unaware of cancer. Almost 70% of delays in diagnosis remain ascribed to patients in most other studies, which is in line with our study. This failure to recognize the severity of symptoms has been observed in other communities as also reported by Robb *et al.*, Courtney RJ *et al.*, And Hashim MS *et al.* Because common symptoms of cancer are often attributed to mild diseases such as tooth decay and patients begin self-treatment or seek help. quacks, our study found that 49 (44.5%) patients consulted quacks, and 22 (20%) began self-medication. medications after the onset of hematochezia. This "wait and see" attitude of patients denying or redefining their symptoms with regard to mild disease or self-healing has also been reported by

Macdonald *et al.*, Mitchell *et al.* And in Macleod *et al.* Lower socioeconomic status and level of education are risk factors delayed presentation of several tumors. There is a clear effect of anxiety levels on patients' delays in healthcare behavior. Cancer awareness is weaker among the less educated and those with low socioeconomic status, as mentioned by Grunfeld *et al.* And Robb *et al.* This is consistent with this study in the sense that 73 (66.3%) are people of origin rural areas, 80% of which belonged to a weak socio-economic class. Although 66 (60%) of the patients in our study met the baseline criteria for reading and writing, only 10 (9.1%) of the patients were above-qualified. This factor is evident in our study of multivariate analysis with a significant p -value of 0.007 (Table 2). People's attitudes, beliefs and social context clearly influence the process of seeking medical help. Existing literature suggests that fear and embarrassment, influenced by family members, close members of the community, and friends, play a role in delaying patient diagnosis of cancer, which also applies to our society. Also, these studies show that people have a negative belief and attitudes about the benefits of seeking medical help for cancer, and such unbelief is reinforced by spiritual healers and quacks, to whom our patients report unclear symptoms, as evidenced by the fact that 71 (64.5%) of our patients either first consulted with spiritual healers or healers and were delayed by our institution. There was no significant association between gender and delayed presentation either at the patient level (p -value 0.163) or at the physician level (p -value 0.178) in our institution. This is consistent with the observations of Mitchell *et al* and Macdonald *et al*, but disagreed with the results

of Esteva M et al, who reported that women experience longer time intervals than men. However, in our study, we found that relatively older patients of both sexes asked practitioners and quacks for early referral to hematochezia consultants, regardless of their socioeconomic status or literacy. This diversity of observations is due to the fact that the patients in our community have already wasted a lot of time on their own level by self-healing or spiritual healers, and so far have little experience and awareness. General practitioners and health professionals play a role in colon cancer targeting. The lack of full or adequate examination of patients, the use of inadequate tests, and the lack of observation of inconclusive results contributed to the delay at their level. This fact is confirmed not only by our study in which 80% of patients with hematochezia did not have a digital rectal exam when they reported to various healthcare professionals, but also by Tomlinson et al who reported that only 38% of patients had a rectal finger exam during first visit. Overall, even after a long delay, referral is not appropriate, as our study shows that fifteen (13.6%) of rectal bleeding cases were referred either to gynecologists or to irrelevant consultants who did not care about the importance of a rectal finger scan and the delay, the diagnosis of colorectal cancer has been enhanced. It is reasonable to emphasize that even patients suspected of having colorectal cancer presented or referred to tertiary care facilities, but have more or less delay in diagnosis. Although a delay of 15 ± 7 days before endoscopy and biopsy was observed in our center, it was observed in 46 (41%) cases, which is comparable to the reports of Singh H et al. Who noted delay in hospitalization in 33.7% of patients. Contrary to our observations, Singh et al. Reported that the mean time between first referral and endoscopy completion is 123 days, which is too long. This variability in results may be due to the overload of patients in their facility or the inefficient process associated with colonoscopy. There is a definite need for a better understanding of the psychological sociological factors influencing patients in their search for behavior. In addition, healthcare systems need to develop culturally sensitive strategies not only to increase cancer awareness but also to help patients and clinicians interpret the severity of symptoms. Equally important is the need for health care regulations for practicing healers, GPs, consultants and institutions.

CONCLUSION:

The delay in seeking appropriate medical care appeared to be a psychosocial act at the patient level of negligence on the part of healthcare professionals rather than a lack of treatment for colorectal cancer in

facilities. We emphasize the importance of public awareness and stringent regulation of medical practice by responsible authorities in improving the outcomes of colorectal cancer treatment.

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