Colorectal Cancer, Patient's profile and Clinical Presentation in Albania

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Abstract

Introduction

Colorectal cancer (CRC) is a multi-factorial disease with high malignancy, and the fourth leading cause of cancer death worldwide. This study was performed to assess the epidemiological, patients' profile and clinic-pathological characteristics of CRC in Regional Hospital, Durres.

Methods

This is a retrospective study where being included all patients diagnosed with CRC at Surgery ward in Durrës hospital from January 2016 to December 2020. A statistical software SPSS version 21.0 was used for data analyze.

Results

During five years of CRC cases investigation, a total of 136 patients were treated in regional hospital of Durrës city. Of these, 97 (71.3%) patients had cancer of colon and others patients 39 (28.7%) had rectal cancer. Most of the patients (47%) resulted with left-side tumors and (24.3%) with right-sided tumors. Male with CRC resulted 62.5% and female 37.5% with ratio man versus female 1.66. The commonest symptoms were abdominal pain or discomfort 39.7%, diarrhea or

constipation 27.9%, changing in bowel habits 16.9%, rectal bleeding and anemia 15.4%. About the stage of CRC, in stage I resulted 24.3% in stage II 42.6%, stage III 14% and stage IV 19.1%. CRC in descending colon and rectum were commonest in females (22.05%) while in males the ascending colon is the commonest (26%).

Conclusion

During this retrospective study, the cancer of colon cancer resulted more frequent versus or than rectum cancer. Males were the most predominant gender in this study and left side-tumors more frequently occurred on patients over 60 years old. We have found varied clinical presentation among our patients, but abdominal pain or discomfort and diarrhea or constipation were the commonest symptoms. Patients with CRC on the sate II has a predominance in number compared to patients diagnosed with other stage of tumors.

Keywords: *CRC malignancy, clinical presentations, side of tumors*

Introduction

Colorectal cancer is one of the leading causes of cancer-related morbidity and mortality in the world [1] and affects males and females despite their socioeconomic status [2-4]. There are estimated 1.93 million new CRC cases diagnosed, and 0.94 million CRC caused deaths in 2020 worldwide. The global new CRC cases is predicted to reach 3.2 million in 2040 [5]. Main risk factors include advanced age, family history, male sex, and lifestyle factors.

Most colorectal cancers are diagnosed after symptoms have developed [6]. One of the commonest modes of presentation of advanced disease are symptoms of large bowel obstruction necessitating emergency treatment, which often leads to an increased morbidity and mortality [7]. Other warning signs and symptoms of CRC are bloody stool, unexplained weight loss, anemia, lower abdominal lump, rectal bleeding, and chronic abdominal pain [8-10].

Presentation of patients suspected with symptoms of CRC is usually to primary care. Most papers on the symptoms of colorectal cancer [6] give an emphasis the need of a specialized assessment and interpretation of symptoms. This is the main reason that most of cases with CRC worldwide are diagnosed only at very advanced stages. Surgery in patients with colorectal cancer who are admitted as an emergency is associated with a perioperative mortality of 20% and morbidity of 50% [11-13]. These patients tend to have late-stage cancer and are often physically frail. Various procedures, including preoperative colonic stenting, have been tried in order to improve outcomes but with varying degrees of success [12, 14].

An alternative way of improving overall outcomes in this patient group is to identify and treat the cancer before it causes symptoms so severe that an emergency admission to hospital is necessary. This study was performed to assess the epidemiological, patients' profile and clinic-pathological characteristics of CRC in Regional Hospital, Durres.

Methods

Setting and Design

This paper presents a retrospective hospital records-based study which included review of patients' records diagnosed with CRC at Surgery ward in Durrës hospital from January 2016 to December 2020. This hospital is the second largest and a referral hospital center in Albania.

Data collection

We have designed a questioner to collect all the necessary information regarding the patients hospitalized in the Surgery ward for CRC with following items: Firstly, we write the socio-demographics data in which are included: patient's name, gender, age, residence. Secondly. We write the histopathological reports in which are included cytopathologic features, site of affection, prominent cytological characteristics the lesions, disease stage, and the presence of any predisposing pathology.

Data analysis

A total of 136 patients were treated for CRC in regional hospital of Durrës city during five years of investigation. Data were analyzed by using SPSS (Statistical Package for the Social Sciences) version 21.0. For categorical data, frequency and percentage were used for expression and continuous data were expressed by using mean and standard deviation. Test such as Fisher Exact, and Chi square were used for comparison. P value < 0.05 was considered significant.

Results

Overall, 136 patients treated in regional hospital of Durrës, the mean age resulted 74±8.2 and minimum and maximum age were 41 years old and 89 years old

respectively. Male with CRC resulted 62.5% (85/136) and female 37.5% (51/136) with ratio man vs female 1.66. We found a strong association between the sex and CRC. Table 1 shows the sociodemographic variables within colon rectal cancer's patients.

Regarding the age among patients with CRC for the period of five years, 6.6% (9 patients) resulted in the age groups 40-49 years old. With the aging, we see an increase in the number of patients with CRC. For the age 50-59 years old the number of cases were 8.1% (11 patients), for age 60-69 years old were 19.8% (27 patients), for age 70-79 years old were 28.7% (39 patients) and for them ≥ 80 years old were 36.8% (50 years old).

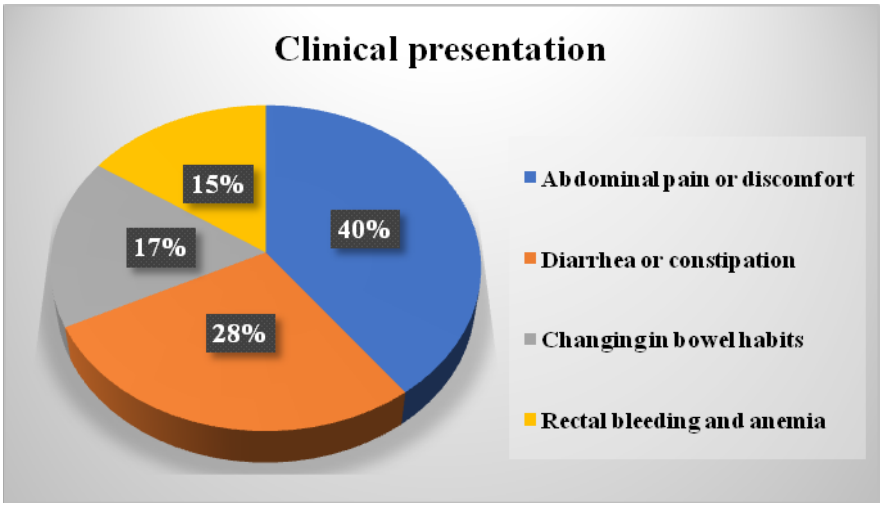
Related to the residence, most patients were from urban area 58.1% (79/136) and them in rural area were 41.9% (57/136). In this case we did not find and association with CRC.

TABLE 1. Sociodemographic characteristic of patients with CRC

Sociodemographic variables	Total number	Percentage	P value
Sex			0.003
Male	85	62.5%	
Female	51	37.5%	
Age groups (year)			0.001
40-49	9	6.6%	
50-59	11	8.1%	
60-69	27	19.8%	
70-79	39	28.7%	
≥80	50	36.8%	
Residence			>0.05
Urban	79	58.1%	
Rural	57	41.9%	

The commonest symptoms were abdominal pain or discomfort 39.7%, diarrhea or constipation 27.9%, changing in bowel habits 16.9%, rectal bleeding and anemia 15.4% (figure 1).

FIGURE 1. Clinical presentation of patients with CRC



The clinical presentations of CRC in relation to gender are presented in table 2. Almost half of them 50.7% are coming in Surgery l ward as an emergency for CRC, 32.4% case are referred by the Primary health care and others 16.9% are coming from outpatients' hospital clinics.

For the site affection of cancer, 97 (71.3%) patients had cancer of colon and others 39 (28.7%) patients had rectal cancer. Most of the patients 47% (64 patients) after clinical diagnostic procedures were presented in Surgery ward determined to have a left-side tumors and 24.3% (33 patients) were presented with right-sided tumors and most of them belonged to younger age group of patients under 60 years old. Sub-site distribution displayed no significant difference in relation to gender. In our study Stage II and I were the main stage of CRC among our patients in percentage 42.6% and 24.3%. Instant cases with stage III stage and IV represented 14% and 19.1% respectively.

Regarding the metastasis at diagnosis 38.2% of them presented distant metastasis, 33.8% local metastasis and 27.9% did not present metastasis. For all clinical presentation male present a predominance versus female and none of them displayed significant difference in relation to gender.

TABLE 2. Clinical presentations CRC relation to gender

Variables	Patients		Sex	
	No	%	Female	Male
Referral site				
Emergency	69	50.7%	25	44
Primary health care	44	32.4%	17	27
Outpatient hospital clinics	23	16.9%	9	14
Site affection				
Right colon	33	24.3%	13	18
Left colon	64	47.0%	23	41
Rectal cancer	39	28.7%	15	24
Stage of CRC (TNM classifications)				
Stage I	33	24.3%	16	17
Stage II	58	42.6%,	19	39
Stage III	19	14%	7	12
Stage IV	26	19.1%.	9	17
Metastasis at diagnosis				
Local	46	33.8%	18	28
Distant	52	38.2%	21	31
None	38	27.9%	12	26

Discussion

The advancements made in understanding colorectal cancer path physiology have led to the increased treatment options. These treatments have effectively inhibited cancer progression and prolonged overall survival. [15, 16]. Even though of so much progress has been made in the field of CRC treatment, this tumor still remains a major problem for public health and humanity itself. CRC has a tendency to increase with advancing age along with fairly rare incidence below 40 years of age, especially in western world [17]. This increasing trend with age is seen as well in our study, most of patients 85.3% were over 60 years old, only 14.7% were under 60 years old.

In 2020, the global CRC incidence rate in men (23.4 cases per 100,000 persons) is 44% higher than in women (16.2 cases per 100,000 persons). In our study we

have also a predominance in men versus female with a strong significance p =0.003.

Geographic factors, including travel time and spatial accessibility to CRC screening providers, may influence adherence to risk-appropriate screening. Rural populations are particularly vulnerable to access barriers, resulting in possible geographic disparities in health services utilization. Available evidence indicates that rural residents are less likely than urban residents to receive CRC screening and to be up-to-date with CRC screening guidelines. Geographic proximity to cancer screening providers may explain differences in screening utilization between rural and urban groups [19]. In this study we have analyzed the residence area with patients with CRC. 58.1% of the living in urban area and 41.9% in rural area. No significant association were found between the residence and presence of CRC to our patients.

The risk of men developing advanced adenoma or cancer is roughly double versus women [20,21]. Furthermore, men develop advanced adenoma and colorectal cancer earlier in their lives than women [21, 22]. A recent study demonstrated that male sex increases the risk to a similar extent as a positive family history of colorectal cancer [23]. The finding in this paper shows that left side of colon is the predominant site of CRC in both sexes. Proximal left and right colon is more common site in males. The main predominance is seen as well for the rectal cancer in male. There are some but non-significant gender differences in presentation and cancer staging in this study. Stage II and I are the most predominant stage and more advanced cancer regarding metastasis, among both genders, are reported in this study. This emphasizes the need to enhance early detection by proper screening [24]. All these changing trends of increase in incidence, detection at young age, advance stage at the time of presentation and variation in sub site distribution are resulting from myriad of factors [17].

Conclusion

During this retrospective study, the cancer of the colon cancer resulted more frequent versus rectum cancer. Males were most predominant gender in this study and left side-tumors has affected the age more than 60 years old. We have found varied clinical presentation among our patients, but abdominal pain or discomfort and diarrhea or constipation were the commonest symptoms. Also, the stage II of CRC has a predominance compared to other stage of tumors. Screening of the population can reduce incidence and death from colorectal cancer. Therefore, prevention and early detection are crucial in order to detect and remove pre-neoplastic adenomas and to detect cancers at early stages.

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