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Research Article

A retrospective study for Colorectal Cancer in Vlore, Albania-suggestions for further implications

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Abstract

Objective: Colorectal cancer is one of the most commonly occurring cancers in men and women worldwide as well as one of the most common causes of death from cancer. It has a higher prevalence in men than women. The treatment of colorectal cancer (surgically or through chemotherapy) severely affects both patients and their families. The objective of the study was to identify cases of colorectal cancer, evaluate their demographic and clinical data, and identify any statistical relationship.

Methods: This is a retrospective study. The data were collected through the revision of cancer patients' files in the Chemotherapy Center at Vlore Regional Hospital, Vlore, Albania. The analysis included files from 2015-March 2019. A total of 72 patients' files with colorectal cancer were analyzed.

Result: Mean age of patients 66.36 ± SD10.99 years old, range 38-86. Most of the patients were male (*n* = 45) and with colon cancer type (*n* = 44). 19 patients had treatment with surgery, radiation, and chemotherapy. 56.34% of patients with colorectal cancer are still alive. The results of the study are the same as the global trend in terms of age, gender, type of cancer but not in terms of years of survival, which appear lower.

Conclusion: The study suggests that in demographic terms patients with colorectal cancer have no difference from world trend. There was also a marked lack of documentation regarding the clinical data of patients. The complete and accurate documentation of cases with colorectal cancer is recommended to develop quality models of nursing care as well as to design effective promotional and preventive campaigns for colorectal cancer.

More Information

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Keywords: Colorectal cancer; Prevention; Chemotherapy; Nursing care; Survival rate

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Introduction

Colorectal cancer is one of the most commonly occurring cancers in men and women worldwide as well as one of the most common causes of death from cancer [1]. Due to exogenous and/or endogenous factors, the mortality of colorectal cancer is higher in men than women [2]. Colorectal cancer mainly affects older adults, but the incidence is rising among the young population [3]. Also, in Europe the incidence of colorectal cancer is rising among young adults, stressing the importance of taking into account the review of screening guidelines [4]. Survival for patients with colorectal cancer has improved over the past decades especially for young patients, while older patients aged ≥ 85 years benefited less [5]. Survival depends on the stage at which it is diagnosed, with early-stage diagnosis ensuring survival for at least 5 years from when the cancer is found [6]. In addition, gender is a significant factor in influencing survival results among colorectal cancer patients, females had significantly better survival rates than men [7]. According to World Health Organization, a good part of cancer deaths is due to behavioral and dietary risks such as lack of physical activity, tobacco and alcohol use, obesity, and low fruit and vegetable intake [6]. The increased risk of colorectal cancer is significantly associated with a high intake of red and processed meat [8], while the risk for colorectal cancer decreases with a high intake of dietary fiber [9]. The treatment of colorectal cancer usually includes or combines methods such as surgery, radiation therapy, and chemotherapy. The treatment chosen is based on the stage of colorectal cancer when diagnosed and usually, the first treatment is surgery. If the treatment does not work, in particular in advanced stages of colorectal cancer the disease is considered terminal and may need hospice care for both the patient and family [10]. Primary prevention based on modifications in diet and lifestyle, increasing physical activity with a focus on weight loss reduces the risk of colorectal cancer [11]. In addition,

secondary prevention reduces the number of incident cases through early detection of cancer at a curable stage. This is achieved by organizing population-based screening interventions and is particularly necessary for developing countries [12]. Nurses, as an important part of health care staff, having knowledge of and using evidence-based guidelines, screening for colorectal cancer, can influence in decreasing the morbidity and mortality associated with colorectal cancer [13]. In addition, the collaboration of both the oncology care team (including nurses and pharmacists) and patients is crucial for effective side effect management of chemotherapy for colorectal cancer [14]. In addition, providing customized chemotherapy with maximum benefits and fewer side effects is not yet possible [15].

Materials and methods

Study design and population

A retrospective study was conducted to identify all patients with colorectal cancer through the examination of the patients' files treated at the Chemotherapy Center at Vlore Regional Hospital, Vlore, Albania. The objective of the study, besides identifying cases of colorectal cancer, gender and, the mean age of affected patients, was the assessment of the statistical relationship between the type of treatment received after being diagnosed with colorectal cancer and the progress of health status. Another objective was to identify case documentation in terms of disease history, risk factors, chemotherapy side effects, and their management.

Data collection

The data were collected through the revision of the cancer patients' files in the Chemotherapy Center at Vlore Regional Hospital, Vlore, Albania. A medical diagnosis of colorectal cancer was the criteria for inclusion in the study. Patients diagnosed with other, non-colorectal, types of cancer were excluded from the study. Files from 2015-March 2019 were analyzed. The duration of the data collection lasted from January to March 2019. In total 72 patients with colorectal cancer were identified. The Chemotherapy Center in the Vlore Regional Hospital was set up in January 2015. This center offers chemotherapy to patients and gathers data on their condition. The data collected are demographics such as age, gender as well as clinical data like the type of cancer diagnosed, the type of treatment received after being diagnosed with cancer, the progress of the health status, and whether the patients were still alive or not. However, the patient files had no documented data on the complications of colorectal cancer, the type of surgical treatment applied, and the stage of cancer at the time of diagnosis.

Ethical considerations

An approval to conduct the study was obtained by the relevant ethics committee. The study guide based on the principles of the Helsinki Declaration [16] and of the Ethics for researchers Facilitating Research Excellence in FP7 [17]. Also, anonymity was assured at all stages of the study.

Data analysis

Statistical analysis was performed using Epi-InfoTM 7 software version 7.1.3.10 (CD-C Epi InfoTM). Descriptive statistics was used and significance was set at level $\leqslant 0.05$. Demographics and outcome variables were summarized using descriptive statistics, expressed as mean, Standard Deviation (SD) for continuous variables and percent for categorical variables.

Results

Participant's characteristics

A total of 72 patient files were analyzed. Of the 72 cases, 62.50 % (n = 45) were male, with the most predominant age being 68 years old. The mean age of the patients was 66.36 years old. Colon cancer predominated with 62.50%. The treatment was mainly surgical (n = 48; 66.67%) and radiotherapy (n = 49; 68.06%). Only 19 patients out of 72 had been treated with a combination of surgery, chemotherapy, and radiotherapy. 56.34 % of patients were still alive (Table 1).

No statistical relationship was found between treatment and the progress of health status, gender and the progress of health status, $p > 0.05$.

Distribution of patients by gender based on the type of treatment of colorectal cancer.

Table 2 shows the distribution of patients based on the type of treatment of colorectal cancer. The treatments received were surgery, chemotherapy, and radiotherapy. There were 27 female patients and 45 male patients.

It should be noted that apart from the data presented in table 1 and table 2, no patient data was documented regarding the history of the disease, risk factors, and chemotherapy side effects management.

Table 1: Descriptive analysis of the studied subjects.

Demographic data				
Age (years)	Mean ± SD[a]	66.36 ± 10.99	Media n = 68	Mode = 68
	Range	38-86		
Gender	N	(%)	Exact 95% LCL[b]	Exact 95% UCL[c]
Male	45	62.50	50.30	73.64
Females	27	37.50	26.36	49.70
Clinical data				
Type of cancer	N	(%)	Exact 95% LCL	Exact 95% UCL
Colon cancer	44	62.86	50.48	74.11
Rectal cancer	26	37.14	25.89	49.52
Treatment	Yes		No	
	N	(%)	N	(%)
Surgery	48	66.67	24	(33.33)
Chemotherapy	19	27.94	49	72.06
Radiotherapy	49	68.06	23	31.94
Progress of health status	Yes		No	
	N	(%)	N	(%)
Alive	40	56.34	31	43.66

[a]Standard deviation; [b]Lower confidence limit; [c]Upper confidence limit

Table 2: Distribution of patients based on the type of treatment of colorectal cancer by gender.

Type of treatment by gender	Frequency	Percent	Exact 95% LCL	Exact 95% UCL
Surgery				
Female 27	15	32.65	19.95	47.54
Male 45	33	67.35	52.46	80.05
TOTAL	48			
Chemotherapy				
Female 27	6	31.58	12.58	56.55
Male 45	13	68.42	43.45	87.42
Total	19			
Radiotherapy				
Female 27	14	28.57	16.58	43.26
Male 45	35	71.43	56.74	83.42
TOTAL	49			

Discussion

This study was set out with the aim to identify all patients with colorectal cancer in the Chemotherapy Center at Vlore Regional Hospital, as well as to evaluate the demographics and clinical data of patients identified. A total of 72 patients with colorectal cancer were identified from the opening of the chemotherapy center (January 2015) until March 2019. The mean age of patients diagnosed with colorectal cancer was 66.36 years old, median age 68 years old, Table 1. The trends regarding the age of diagnosis for colorectal cancer in our study did not differ from global trends as the age of diagnosis is the same [18] despite the fact that over the past two decades there is an increase of incidence of colorectal cancer in young adults [19].

Even though colorectal cancer is one of the most common causes of cancer morbidity both in men and in women [1]. Table 1 shows that in the 72 patients with colorectal cancer analyzed in our study, 45 were men and 27 were women. A study suggests that women over 65 years old have higher mortality and lower 5-year survival rate of colorectal cancer compared to the same age-group of men [20]. On the other hand, a meta-analysis regarding gender differences in the survival rate of colorectal cancer found that gender is a significant factor and that females are the ones with more survival benefits. [21].

In our study, no statistical association was found between gender and survival rate. It should be emphasized that the patient charts lacked the exact period of diagnosis of the disease and that the assessment of the statistical association for survival after diagnosis was performed based on the prognosis of health status.

Refer to table 1, colon cancer is more prevalent than rectal cancer (62.86% *vs.* 37.14%). The numbers are the same as the worldwide trend, with colon cancer being more prevalent [22].

As suggested by the literature, the treatment of colorectal cancer is based on and/or a combination of surgery, radiation, and chemotherapy [22]. Table 1 and Table 2 show that only 19 patients, female n = 6 and male n = 13 had the all three of the treatments mentioned above. 48 patients had surgery and radiation therapy while 49 patients had surgery and chemotherapy as treatment. Since the treatment of colorectal cancer is based on the stage of cancer when diagnosed. The first treatment is surgery [23], and it is mainly used in the early stages. The results of our study suggest that only 48 patients (female n = 15 and male n = 33) of 72 underwent surgery as treatment indicating that the rest of the patients have been diagnosed at an advanced stage (Table 2). Despite this fact, the above result requires further study as the patient charts did not have accurate data regarding the stage of colorectal cancer upon diagnosis. Regarding the progress of health status. Table 1 shows that only 40 patients with colorectal cancer are still alive, while 32 others have died. Although we do not have accurate data regarding the period of diagnosis of patients with colorectal cancer, referring to the period of the Chemotherapy center opening (January 2015) and the end of the study in March 2019, we can say that about 44% of patients had the survival rate of fewer than 5 years. Referring to another study conducted in Albania for gastric cancer, the survival rate after the diagnosis was about two years [24]. The figures follow global trends [7,19]. Patients' files had no data on colorectal cancer risk factors and family history. The same problem was found regarding a retrospective study for the evidence of gastric cancer cases, year survival rate and frequent symptoms, where the clinical data were very limited [24]. The results of the study suggest more complete and accurate documentation of colorectal cancer patients, especially regarding the year of diagnosis, the exact age of diagnosis, the stage of diagnosis and risk factors is necessary. Complete documentation is also needed for the side effects of type treatment received. All of these will serve not only to design effective promotional and preventive campaigns for colorectal cancer but also to develop quality models of nursing care for colorectal cancer patients for better management of side effects related to chemotherapy.

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