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Original Research Article

Comparison of the Overall Survival in Colon and Rectum Tumors in Kermanshah Province

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Abstract: Colorectal cancer (CRC) is the fourth most common cancer in men and the third most common in women. In this study, we compared the characteristics such as age, sex, tumor grad, tumor location and overall survival rate in patients with colon and rectal cancer. We analyzed two groups of twenty-five patients with colorectal cancer (colon and rectal) that were referred to Department of Radiation and Oncology of Imam Reza hospital in between 2012 to 2015. We checked age, sex, tumor location, tumor grade, and survival. The data were analyzed using Microsoft Office Excel 2007 and Graph Pad Prism 5.The mean age for colon and rectal cancer was 57.60 ± 12.5 years (range, 27-75 years) and 54.48 ± 12.55 years (range, 30-75 years), respectively. Morecolon cancer patients are located in the age range of 60 to 69 years and about patients with rectal cancer are located under 50 years old. The results of the test for sex, age younger than 50 years, Age older than 50 years, mucin production and lymph node, margin and vascular involvement variables showed that for patients with colon cancer were equal, less, more, more and less, respectively in compared with rectal cancer. The 2-year survival rate for colon cancer (71%) is less than rectal cancer (76%).We found survival rate that in rectal cancer is better than colon cancer. It probably kind of pathology (mucinous adenocarcinoma type in colon cancer is more) and age of patients (more patients with rectal cancer are lower age) are two reasons for it.
Keywords: Age, Colon, Overall survival, Rectal.

INTRODUCTION

Colorectal cancer (CRC) is the fourth most common cancer in men and the third most common in women [1]. Study of Sajadi showed that this cancer is the third common cancer in men and the fourth common diagnosed cancer in women in Iran [2]. As a consequence, it has been suggested that CRC should be divided into colon cancer and rectal cancer [3]. Incidence of CRC in Iran has increased recently [4]; especially the incidence of the disease in young patients is higher than expected[5].The survival of a patient with CRC is depended on the anatomic site due to possible heterogeneity between sub sites of CRC. Although, over recent decades, the site-specific incidence and the effect of prognostic factors in the large bowel has been investigated[6,7], but few studies have considered site-specific prognostic factors for colon or rectal cancer. A number of recent studies have analyzed the clinical and biochemical aspects of colon cancers based on their location, i.e., right-sided, left-sided or rectal [8,9]. Other studies showed that type of first treatment, body mass index (BMI), marital status, tumor grade, tumor size and pathologic stage of tumor are significantly related to the survival of CRC patients [7]. In this study, we compared the characteristics such as age, sex, tumor grade, tumor location and overall survival rate in patients with colon and rectal cancer.

PATIENTS AND METHODS

We analyzed two groups of twenty-five patients with colorectal cancer (colon and rectal) that were referred to Imam Reza hospital in between 2012 to 2015. We checked age, sex, tumor location, tumor grade, and overall survival. The data were analyzed using Microsoft Office Excel 2007 and GraphPad Prism 5.

RESULTS

The mean age for colon and rectal cancer was 57.60 ± 12.5 years (range, 27-75 years) and 54.48 ± 12.55 years (range, 30-75 years), respectively. Most colon cancer patients are located in the age range 60 to 69 years and about patients with rectal cancer are located under 50 years old. Tumor location in 6 patients (24%) was cecum, ascending in 3 patients (12), Transverse in 4(16%) patients, descending in 6(24%) patients and sigmoid in 6(24%) patients about colon cancer and tumor location in 6 patients (24%) was rectosigmoid and rectum in 19 patients(76%) about

rectal cancer. Tumor grade of twenty-three, one and one patient/patients was well, moderate and poor, respectively, in colon cancer but sixteen, nine and zero patients was well, moderate and poor, respectively, in rectal cancer. Thirteen patients of 20 patients (five patients lost follow-up) survive in colon cancer but 15 patients with rectal cancer are alive(**Table 1**).

Table 1: Comparison of clinicopathologic characteristics between colon and rectal cancer

Variable	Colon Cancer N(%)	Rectal Cancer N(%)
Age Group		
<50	6(24)	10(40)
50-59	4(16)	5(20)
60-69	12(48)	7(28)
>70	3(12)	3(12)
Location of Tumor		
Cecum	6(24)	
Ascending	3(12)	
Transverse	4(16)	
Descending	6(24)	
Sigmoid	6(24)	
Rectosigmoid		6(24)
Rectum		19(76)
Grad		
Well	23(92)	16(64)
Mod	1 (4)	9(36)
Poor	1(4)	0(0)
Vital Status		
Alive	13(65)	15(60)
Deceased	7 (35)	10(40)
Unknown	5	0

The results of the test for sex, age younger than 50 years, age older than 50 years, mucin production and lymph node, margin and vascular involvement variables showed that for patients with colon cancer were equal, less, more, more and less, respectively, compared with rectal cancer (**Figure 1**).

The Figure 2 shows that the 2-year overall survival rate for colon cancer (71%) is less than rectal cancer (76%).

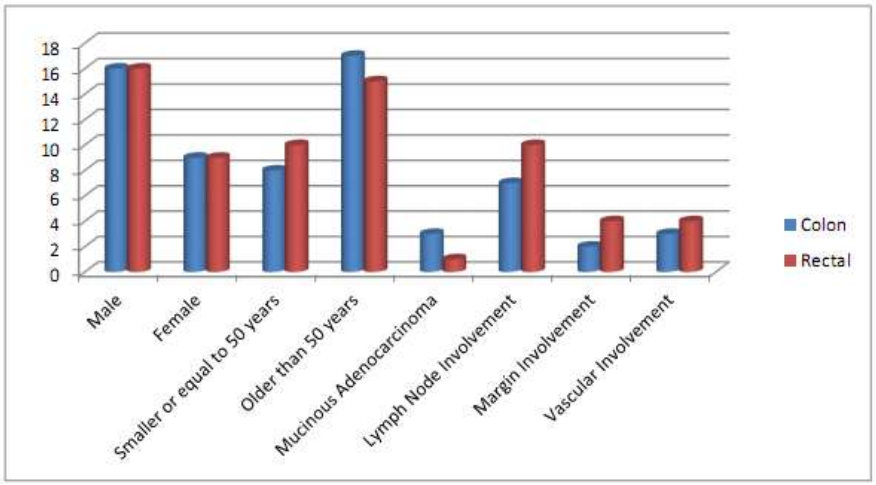

Fig. 1:The proportion of some features to number of patients (colon and rectal cancer)

1.

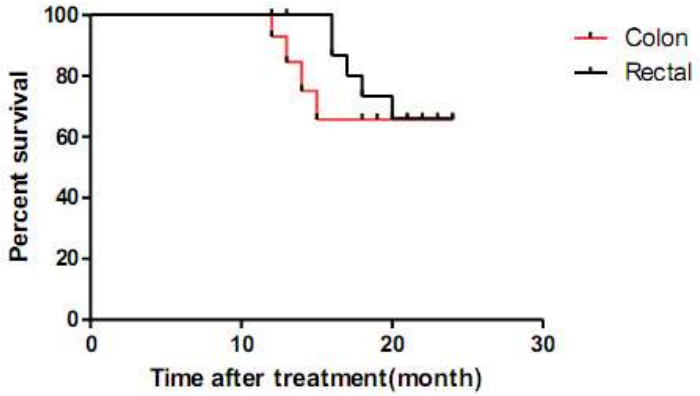

Fig. 2: The 2-year overall survival for colon and rectal cancer

DISCUSSION

CRC is a threat of public health and its increasing rate in Iran especially in youth through recent decades [10]. In this study was conducted on 50 Kurdish CRC patients in order to evaluate the effect of specific clinicopathological factors of colon and rectal cancers. Rectal cancer comprised 56% of the patients and the remaining was colon cancer in the present study but the proportions were 21.9% and 78.9%, respectively, in the study of Safaee et al[11]. We have analyzed two groups of equal numbers (50% colon cancer and 50% rectal cancer).In colon and rectal cancers, there were no statistical differences in age, gender, tumor size, tumor gross type, mucin production, tumor differentiation, venous invasion[12]. The other study, 268 patients with colon cancer and 89 with rectal cancer were similar in gender, tumor size, stage, and differentiation. Despite overall differences in outcome between colon and rectal cancers, no significant difference in survival existed when similar molecular phenotypes were compared across anatomic sites [13]. Tumor grade was a significant prognostic factor of colon cancer based on the results of univariate and multivariate analysis but not for rectal cancer. Colonic patients with poorly differentiated tumors had 2.7 times worse outcome than well-differentiated patients. There are some contrary findings [13], but a study reached similar results to those of us [14].In our study, number of younger patients with rectal cancer was more in comparison with colon cancer patients. In addition, ascending and rectosigmoid sites included with lowest patients about colon patients and rectal patients, respectively. About tumor grade, well differentiated in colon cancer was more than rectal cancer but this relationship about moderate grade was reversed. Overall, 1-, 2-, 3-, 4- and 5-year survivals of patients with rectal cancer were better than those in colon cancer. This shows the better overall and year by year condition of patients with rectal cancer. Other studies confirm this result, too [15]. Also this study confirms it. However, there have also been some arguments to the contrary [16].

CONCLUSION

We found some valuable information about separated anatomical locations of CRC. Important information is overall survival rate that in rectal cancer is better than colon cancer. We think that kind of pathology (mucinous adenocarcinoma type in colon cancer is more) and mean of age about patients(more patients with rectal cancer are lower age) are two reasons for it.

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