Epidemiology of Colorectal Cancer in Kurdistan province, Iran: Retrospective Cohort Study

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Abstract

Statement of the Problem: The epidemiology of CRC is different in various geographical areas. CRC is a leading cause of morbidity and mortality, in Europe, the United States and eastern-south Asia countries as well each year. Colorectal cancer is the 5th most commonly diagnosed cancer in Iranian and fifth and sixth among women and men respectively in Kurdistan province.

Methodology & Theoretical Orientation: We investigated all patients with CRC diagnosis recorded in the Cancer Registry from March 1st, 2009 to 2014. This is a retrospective cohort study in which the medical history and related data of 335 patients with CRC were population-based study in Kurdistan Province. Distinguishing and recording the data was done using International Coding Disease (ICD-10) system based on anatomic location of colon (C18), rectosigmoid (C19) and rectum (C20) codes.

Findings: : Studying 335 CRC patients showed that the mean age at diagnosis in the men was 61.7 years and in the women was 60.5 years. 137 patients (41%) were over 65 years and 82 (24.4%) were lower than 50 years old. Of all, 203 patients (60.5%) were male, 32.3% of patients were living in rural areas, and 50.7% were illiterate. 307 patients (91.6%) had insurance and 24.4% were smokers. Economic status in patient was different (P=0.002). Moreover, 201 patients (60%) were colon cancer, and most of histology type was adenocarcinoma. Among the 164 deaths (49%), 142 patients (85%) died because of cancer, 11 patients (6.7%) died because of unknown reason, and 14 patients (8.3%) died because of some other reasons. The median of survival was 42.6±2.8 (95% CI 36.1-46.2) months.

Conclusion & Significance: We found that factors such as low education, job, inappropriate socio-economic status, high tumor grade, type of treatment and at the time of disease diagnosis were different in the CRC patients in Kurdistan province; this, which need more attention.

Image

Characteristic	Category	Frequency (%)
Sex	Male	203 (60.5)
	Female	132 (39.5)
Age at diagnosis	≤50 y	82 (24.4)
	51–64 y	116 (34.6)
	≥65 y	137 (41)
Residence	Rural	108 (32.3)
	Urban	227 (67.7)
Marital status	Married	263 (78.8)
	Single (unmarried, divorced, widow/widower)	72 (21.3)
Occupation	Unemployed	56 (17.4)
	Housewife	101 (31.4)
	Worker	76 (23.5)
	Self-employed	53 (16.5)
	Employee	36 (11.2)
Education	Illiterate	170 (50.7)
	Diploma or below it	132 (39.5)
	Academic	33 (9.8)
Smoking	No	253 (75.5)
	Yes	82 (24.5)
Socioeconomic status	Poor	105 (33.5)
	Moderate	104 (33.2)
	Rich	104 (33.2)
Family history of CRC	No	293 (87.5)
	Yes	42 (12.5)
Comorbidity	No	205 (61.2)
	Yes	130 (38.8)
Tumor location	Colon	201 (60)
	Rectum	94 (28.1)
	Rectosigmoid	40 (11.9)
TNM stage	II	68 (20.3)
	III	168 (50.1)
Histologic type	Adenocarcinoma	308 (91.9)
	Mucinous\signet ring-cell carcinoma	27 (8.1)
Tumor grade	Well differentiated	99 (29.5)
	Moderately differentiated	106 (31.6)
	Poorly differentiated	86 (25.7)
	Undifferentiated\anaplastic	44 (13.2)

Table 1.Demographic and clinical characteristics of CRC Patient's in Kurdistan Province

Recent Publications

1. Curado M-P, Edwards B, Shin HR, Storm H, Ferlay J, Heanue M, et al. Cancer incidence in five continents, Volume IX: IARC Press, International Agency for Research on Cancer; 2007.
2. Rasouli MA, Moradi G, Roshani D, Nikkhoo B, Ghaderi E, Ghaytasi B. Prognostic factors and survival of colorectal cancer in Kurdistan province, Iran: A population-based study (2009–2014). Medicine. 2017 Feb;96(6).
3. National Cancer Registry Report 2008-9. Tehran IMoH, Deputy for Health Directory, CDC Cancer Office for Health Directory, CDC Cancer Office 2010.



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