ÖZGÜN ARAŞTIRMA ORIGINAL RESEARCH

Med J SDU / SDÜ Tıp Fak Derg ▶ 2022:29(3):386-389 doi: 10.17343/sdutfd.1104209

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF PATIENTS WITH COLON CANCER IN ISPARTA-BURDUR REGION

ISPARTA BURDUR YÖRESİNDEKİ KOLON KANSERİ HASTALARININ DEMOGRAFİK VE KLİNİK ÖZELLİKLERİ

Erkan KAYIKÇIOĞLU[1]

[1] Süleyman Demirel Üniversitesi, Tıp Fakültesi, Tıbbi Onkoloji Bilim Dalı, Isparta, TÜRKİYE

Cite this article as: Kayıkçıoğlu E. Demographic and Clinical Characteristics of Patients with Colon Cancer in Isparta-Burdur Region. Med J SDU 2022; 29(3): 386-389.

Öz

Amaç
Süleyman Demirel Üniversitesi Tıbbi Onkoloji Polikliniğinde takipli kolon kanseri hastalarının demografik ve klinikopatolojik özelliklerini belirlemek.

Gereç ve Yöntem
2010-2021 yılları arasında Süleyman Demirel Üniversitesi Tıp Fakültesi Tıbbi Onkoloji kliniğine başvuran 582 kolon kanseri tanısı almış olan hastanın poliklinik arşiv dosyaları incelendi; yaş, cinsiyet, tümör yerleşim yeri, hastaların ailevi kanser öyküsü, tanı anındaki patolojik TNM evresi kayıt altına alındı.

Bulgular
Medyan yaş 63,5 ölçüldü. 582 hastanın 375'i (64,4%) erkek, 207'si (35,6) kadındı. Hastaların 34'ünde (%5,8) ailede kolon kanseri öyküsü mevcuttu.147 (%25,3) hastada tümör sağ kolondan, 168 (% 28,9) sol kolondan, 265'inde (%45,5) ise rektumdan kaynaklanmaktaydı. Tanı anında 35'inde(%6) T evresi T1, 61'inde (%10,5) T2, 418'inde (%71,8) T3 ve 67'sinde (%11,5) T4 idi. Hastaların patolojik N evresi 246'sında (%42,3) N0, 168'inde (%28,9) N1, 168'inde (%28,9) N2 idi. TNM derecesine göre evrelendirildiğinde 82 (%14,1) hasta Evre 1, 153 (%26,3) hasta Evre 2, 242 (%41,6) hasta Evre 3, 105 (%18) hasta Evre 4 'de tanı almıştır. Hastaların 106'sında (%18,2) tanı anında metastaz saptandı.

Sonuç
Isparta Burdur yöresinden Süleyman Demirel Üniversitesi Tıp Fakültesi Tıbbi Onkoloji Polikliniğine başvuran hastaların çoğu ileri evrede tanı alan hastalardır. Kolon kanseri taramaları hakkında bölge halkının bilinçlendirilmesi, kolon kanseri farkındalığının arttırılması hayati önem taşımaktadır.

Anahtar Kelimeler: Burdur, Isparta, Kolon Kanseri, Tarama

Abstract

Objective
To define the demographic and clinicopathological characteristics of colon cancer patients followed up at Suleyman Demirel University, Medical Oncology Outpatient Clinic.

Material and Method
Outpatient archive files of 582 patients who applied to Suleyman Demirel University Faculty of Medicine, Medical Oncology Clinic and received a diagnosis of colon cancer between 2010-2021 were examined and patients' age, gender, tumor location, family history

Sorumlu yazar ve iletişim adresi /Corresponding author and contact address: E.K. / drkayikcioglu@yahoo.com
Müracaat tarihi/Application Date: 16.04.2022 • Kabul tarihi/Accepted Date: 22.08.2022
ORCID IDs of the authors: E.K: 0000-0002-7401-5446

of cancer, and pathological TNM stage at the time of diagnosis were recorded.

Results
Median age was 63.5 years. Of the 582 patients, 375 (64.4%) were male and 207 (35.6%) were female. Thirty-four (5.8%) of the patients had family history of colon cancer. The origin of the tumor was the right colon in 147 (25.3%) patients, the left colon in 168 (28.9%), and the rectum in 265 (45.5%). At the time of diagnosis, T stage was T1 in 35 (6%) patients, T2 in 61 (10.5%), T3 in 418 (71.8%), and T4 in 67 (11.5%). Pathological N stage was N0 in 246 (42.3%) patients, N1 in 168 (28.9%), and N2 in 168 (28.9%). When staging was made according to TNM grades, 82 (14.1%) patients were diagnosed with Stage 1 disease, 153 (26.3%) with Stage 2 disease, 242 (41.6%) with Stage 3, and 105 (18%) patients were diagnosed with Stage 4 disease. Metastasis was detected at the time of diagnosis in 106 (18.2%) of the patients.

Conclusion
Most of the patients who apply to Suleyman Demirel University Faculty of Medicine, Medical Oncology Outpatient Clinic from the Isparta-Burdur region are patients diagnosed at an advanced stage. It is of vital importance to raise awareness of colon cancer screenings and increase awareness of colon cancer in the community of this region.

Keywords: Burdur, Colon Cancer, Isparta, Screening

Introduction

According to GLOBOCAN data, colorectal cancer is the third most common cancer with approximately 1.870.000 new cases per year, and the second most common cause of cancer related death with 916.000 cases per year. The incidence of colon cancer is four times higher in developed countries than in developing countries; however, with similar rates of mortality. In developing countries, more animal-source food is consumed with increasing levels of income and a more sedentary lifestyle leads to a decrease in physical activity, thereby to being overweight; and these characteristics are independent risk factors for the development of colon cancer (1). Alcohol, smoking, and consuming red and processed meat increase the risk while calcium supplements, whole grains, high-fiber food and dairy products reduce the risk. The American Cancer Society has lowered the screening age for colon cancer from 50 to 45 years due to the increase in the incidence among younger individuals. Most guidelines recommend colonoscopy every 10 years or fecal occult blood test and rectosigmoidoscopy every 5 years after the age of 50 as a screening method; however, compliance with the colon cancer screening program is extremely low in our country, as is the case in most countries (2).

Patients may apply to the clinic with gastrointestinal complaints or to the emergency department with bleeding, obstruction or perforation. While patients diagnosed with screening methods receive the diagnosis in an early stage, those diagnosed after presenting with complaints receive the diagnosis in a locally advanced or metastatic stage and their overall survival is shorter compared to early-stage disease. Several studies have shown that 70-90% of colorectal cancer patients receive the diagnosis after presenting with a complaint (3). Tumors originating from the left and right side of the colon have different embryological origins. While the cecum, appendix, ascending colon and the proximal two-thirds of the transverse colon originate from the midgut; the distal one-third of the transverse colon, descending colon, sigmoid colon and the proximal two-thirds of the rectum originate from the hindgut. The right colon is perfused by the superior mesenteric artery, whereas the left colon is perfused by the inferior mesenteric artery. The physiological functions of the right and left colon as well as their exposure to nutrients and carcinogens also differ (4). It is thought that the prognostic and predictive value of the location of colon cancer may be due to the different origins; however, the underlying reasons of this difference have not yet been fully clarified. Right colon is defined as cancers originating from colon segments proximal to splenic flexura and left colon distal to splenic flexura in our study.

The purpose of this study is to identify the tumor site and disease stage at diagnosis for colon cancer patients who applied to our hospital.

Material and Method

The Ethics Committee of Suleyman Demirel University Faculty of Medicine approved this study on 01.04.2022 with protocol number 8/104. There was no need for a Scientific Research Fund because the investigation would be retrospective.

We planned to conduct a observational cross-sectional study investigating the demographic characteristics and tumor location, presence of family history, and TNM stage at the time of diagnosis in colon cancer patients who applied to Suleyman Demirel University Faculty of Medicine, Medical Oncology Clinic.

Outpatient archive files of 582 patients who applied to Suleyman Demirel University Faculty of Medicine, Medical Oncology Clinic and received a diagnosis of colon cancer between 2010-2021 were examined and patients' age, gender, tumor location, family history of cancer, and pathological TNM stage at the time of diagnosis were recorded.

Results

The data of 582 patients who applied to Suleyman Demirel University Faculty of Medicine, Medical Oncology Clinic between 2010-2021 were analyzed retrospectively. Median age was 63.5 years. Of the 582 patients, 375 (64.4%) were male and 207 (35.6%) were female. Thirty-four (5.8%) of the patients had family history of colon cancer. The origin of the tumor was the right colon in 147 (25.3%) patients, the left colon in 168 (28.9%), and the rectum in 265 (45.5%). At the time of diagnosis, T stage was T1 in 35 (6%) patients, T2 in 61 (10.5%), T3 in 418 (71.8%), and T4 in 67 (11.5%). Pathological N stage was N0 in 246 (42.3%) patients, N1 in 168 (28.9%), and N2 in 168 (28.9%). When staging was made according to TNM grades, 82 (14.1%) patients were diagnosed with Stage 1 disease, 153 (26.3%) with Stage 2 disease, 242 (41.6%) with Stage 3, and 105 (18%) patients were diagnosed with Stage 4 disease. Metastasis was detected at the time of diagnosis in 106 (18.2%) of the patients.

Discussion

According to 2020 data, there are 21,000 new cases of colon cancer annually in Turkey, and approximately 11.000 patients die due to colon cancer every year (1). Colorectal cancer is the 2nd most common cause of cancer-related death. In our study, the median age was 63 years. While the incidence in elderly patients has been decreasing since the 1990s, the incidence in younger adults has doubled. One out of every 10 newly diagnosed patients is under the age of 50 years. The increased incidence in younger patients may be due to the changing dietary habits, environmental exposures, and lifestyle. Seventy-nine (13.6%) of the patients in the present study were under the age of 50 years and 7 (8.9%) of them had a family history of colon cancer. The risk of colon cancer increases with age and with the presence of family history; however, a relevant family history is seen in only 25% of young patients (5).

In 147 (25.3%) patients, the tumor had originated from the right colon. In a meta-analysis of 66 studies involving 1.437.000 patients, tumors located in the right colon were associated with poor prognosis while tumors located in the left colon had a 12% reduced risk of death, and this effect was independent of the number of patients enrolled in the studies and the adjuvant chemotherapies used in the treatment (6). KRAS and BRAF mutations are more common in tumors of the right colon and are associated with poor prognosis (7).

In our study, nearly 60% of the patients were diagnosed at an advanced stage (Stage 3, 4). The pathological tumor stage at the time of diagnosis is the most important prognostic marker. The 5-year survival is 33.4-74% in stage 3 disease and 6% in stage 4 disease (8).

Environmental and genetic triggers, diseases, and inflammatory factors play a role in the development of colon cancer. In most of the guidelines, colon cancer screening starts at the age of 50 years for healthy individuals without a family history, genetic predisposition, inflammatory bowel disease or history of radiotherapy. However, due to the increasing diagnosis among younger individuals, The American Cancer Society reported in 2021 that screening is recommended for all individuals after the age of 45 (9). In those with a family history and/or genetic predisposition, screening should start at an earlier age. Screening can be performed every 10 years with total colonoscopy or by means of fecal occult blood test and rectosigmoidoscopy every 5 years. In our study, the disease was seen to originate from the right colon in 25.3% of the patients, compared to 36% in a study conducted in United Kingdom (10). This result indicates that most colon cancer diagnoses can be made even with rectosigmoidoscopy alone in cases where total colonoscopy cannot be performed during the screening. Most of the patients (59.6%) were diagnosed at an advanced stage. Effective implementation of the screening program would increase overall survival by reducing the proportion of patients diagnosed at such an advanced stage. This descriptive study represents the study with the largest number of colon cancer patients reported from our region.

Conflict of Interest Statement
The authors have no conflicts of interest to declare.

Ethical Approval
The Ethics Committee of Suleyman Demirel University Faculty of Medicine approved this study on 01.04.2022 with protocol number 8/104. Study was conducted in line with the principles of the Helsinki Declaration.

Consent to Participate and Publish
Written informed consent to participate and publish was obtained from all individual participants included in the study.

Funding
This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Availability of Data and Materials
Data available on request from the author.

Authors Contributions
EK: Conceptualization; Data curation; Formal analysis; Investigation; Validation; Visualization; Writing-original draft.

References

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. CA Cancer J Clin. 2021;71(3):209-49.
2. Benson AB, Venook AP, Al-Hawary MM, Cederquist L, Chen YJ, Ciombor KK, et al. NCCN Guidelines Insights: Colon Cancer, Version 2.2018. J Natl Compr Canc Netw. 2018;16(4):359-69.
3. Moreno CC, Mittal PK, Sullivan PS, Rutherford R, Staley CA, Cardona K, et al. Colorectal cancer initial diagnosis: screening colonoscopy, diagnostic colonoscopy, or emergent surgery, and tumor stage and size at initial presentation. Clinical colorectal cancer. 2016;15(1):67-73.
4. Arnold D, Lueza B, Douillard JY, Peeters M, Lenz HJ, Venook A, et al. Prognostic and predictive value of primary tumour side in patients with RAS wild-type metastatic colorectal cancer treated with chemotherapy and EGFR directed antibodies in six randomized trials. Ann Oncol. 2017;28(8):1713-29.
5. Stoffel EM, Murphy CC. Epidemiology and Mechanisms of the Increasing Incidence of Colon and Rectal Cancers in Young Adults. Gastroenterology. 2020;158(2):341-53.
6. Petrelli F, Tomasello G, Borgonovo K, Ghidini M, Turati L, Dallera P, et al. Prognostic Survival Associated With Left-Sided vs Right-Sided Colon Cancer: A Systematic Review and Meta-analysis. JAMA Oncol. 2017;3(2):211-9.
7. Sinicrope FA, Mahoney MR, Yoon HH, Smyrk TC, Thibodeau SN, Goldberg RM, et al. Analysis of Molecular Markers by Anatomic Tumor Site in Stage III Colon Carcinomas from Adjuvant Chemotherapy Trial NCCTG N0147 (Alliance). Clin Cancer Res. 2015;21(23):5294-304.
8. Edge SB, Compton CC. The American Joint Committee on Cancer: the 7th edition of the AJCC cancer staging manual and the future of TNM. Ann Surg Oncol. 2010;17(6):1471-4.
9. Davidson KW, Barry MJ, Mangione CM, Cabana M, Caughey AB, Davis EM, et al. Screening for Colorectal Cancer: US Preventive Services Task Force Recommendation Statement. Jama. 2021;325(19):1965-77.
10. Hamilton W, Round A, Sharp D, Peters TJ. Clinical features of colorectal cancer before diagnosis: a population-based case-control study. Br J Cancer. 2005;93(4):399-405.