EPIDEMIOLOGY OF COLORECTAL CANCER IN ANDIJAN REGION

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SUMMARY
The article is devoted epidemiological features colorectal cancer in Andijan region . The growing increase in the incidence of colorectal cancer in the world, accompanied by high mortality, forces us to pay special attention to the diagnosis and treatment of precancerous diseases of the colon and rectum. The mortality rate for this disease ranks second among malignant neoplasms, despite the fact that colorectal cancer is classified as a group of cancer diseases that can be prevented with early and timely detection .
KEYWORDS. *Colorectal cancer , epidemiology, mortality.*

RELEVANCE
Recently, there has been an increase in incidence and mortality from colorectal cancer. Colorectal cancer (CRC) is a widespread pathology, the annual incidence in the world reaches 1 million cases[1,5]. According to the World Health Organization, CRC ranks third in incidence among men and second among women [Bénard F, Barkun AN, Martel M et al. Systematic review of colorectal cancer screening guidelines for average-risk adults: Summarizing the current global recommendations. World J Gastroenterol. 2018; 24(1):124-138. Zavoral M, Suchanek S, Majek O et al. Colorectal cancer screening: 20 years of development and recent progress. World J Gastroenterol . 014;20(14): 3825-3834.] , and according to the Center for Oncology and Radiology of the Republic of Uzbekistan, in 2018, CRC ranked second among men, fifth among women[6]. The staging for the initial identification of patients looks like this: I – 2.7%, II – 44.4%, III – 35.8% and IV – 16.2%. The growing increase in the incidence of colorectal cancer in the world, accompanied by high mortality, forces us to pay special attention to the diagnosis and treatment of precancerous diseases of the colon and rectum[8,12]. Mortality for this disease ranks second among malignant neoplasms, despite the fact that colorectal cancer is classified as a group of cancers that can be prevented with early and timely detection [Woodall M, DeLetter M. Colorectal Cancer. A collaborative approach to improve education and screening in a rural population. Clinical Journal of Oncology Nursing. 2017;22(14):69-75. 4. Bond JH. Fecal occult blood testing for colorectal cancer. Can we afford not to do this ? Gastroenterol Clin North Am.1997;26:57-70.]. Considering the data regarding the staging during the initial treatment of patients with colorectal cancer, special attention is paid to measures aimed at the early detection of cancer and precancerous pathologies of the colon. Conducting timely screening among people at average risk reduces the morbidity and mortality from CRC[3,7].

PURPOSE OF THE STUDY
Explore Epidemiological features and colorectal cancer in the Andijan region of the Republic of Uzbekistan
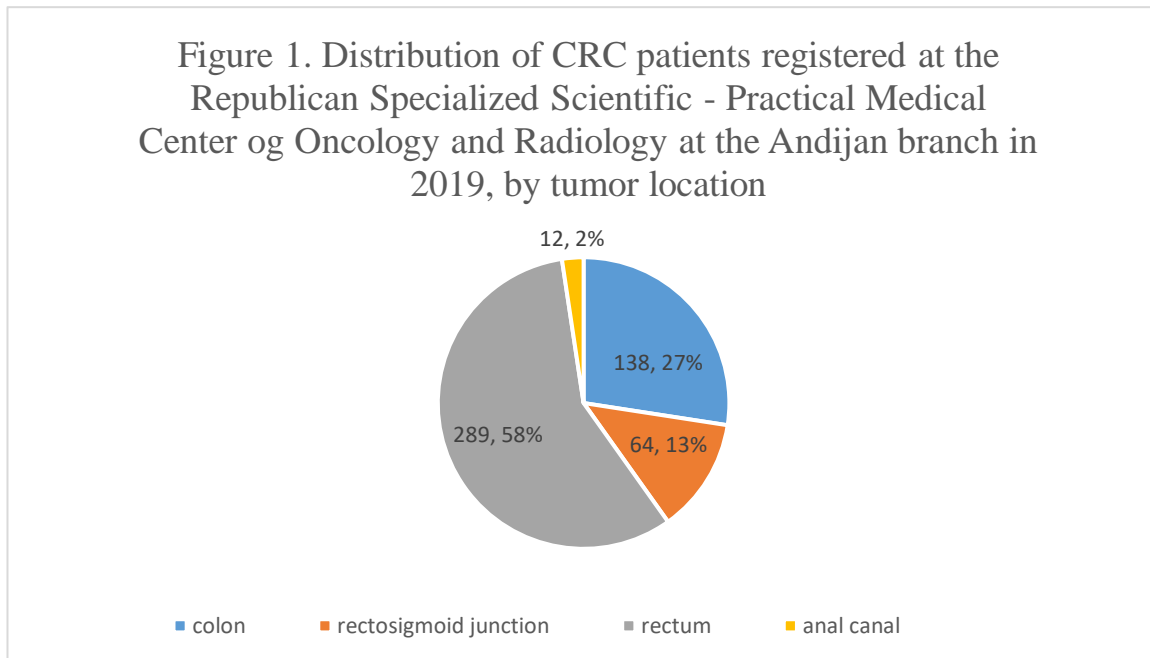
MATERIALS AND METHODS OF RESEARCH
We conducted a retrospective study , during which we analyzed epidemiological data on the characteristics of the incidence of colorectal cancer in the Andijan region of Uzbekistan based on the archives of the Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology for 2016-2019; and prospective, during which the results of our own colonoscopic screening were analyzed and an algorithm for population-based CRC screening was developed. And we analyzed data from the archives of the Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology for 2016-19. The annual statistics of morbidity, primary morbidity, active detection, detection depending on the stage of the tumor, mortality and survival associated with CRC were studied.

RESULTS
The population of Andijan region during the observation period increased by 3.4% and amounted to 2,962,500 people in 2016, 2,987,100 in 2017, and 3,066,879 people in 2019. In total, 7,484 people were registered with the OOD in 2019, which amounted to a malignant neoplasm rate of 244 people per 100,000 population. Including the number of patients with colorectal cancer – 503, which amounted to 16.4 cases per 100,000 population, or 6.72% of all malignant tumors. In 2016, in the Andijan region there were

only 470 patients with colorectal cancer (15.9 people per 100,000 population, frequency difference from 2019 chi square = 0.70, n.d.). By 2017, the number of patients decreased, as did the incidence - 385 patients (12.9 cases per 100,000 population, reliability of the frequency difference from 2016 chi square = 9.17, p < 0.01; from 2019 chi square = 12.73, p <0.001). Thus, the differences in the incidence of colorectal cancer among the population of the Andijan region were significant: chi square = 14.29, p < 0.001.

CRC cases were classified by location into colon, rectosigmoid junction, rectum and anal canal cancer, with more than half of the cases (57.46%) being rectal cancer, and the rarest location (2.39%) being anal cancer. channel (Figure 1).

Figure 1. Distribution of CRC patients registered at the Republican Specialized Scientific - Practical Medical Center og Oncology and Radiology at the Andijan branch in 2019, by tumor location

Gender distribution (Fig. 2) showed that men predominated among patients with colorectal cancer (54.87%). However, a comparison of the gender distribution of patients depending on the location of the tumor found that a tumor of the rectosigmoid junction was more common in women (58.13%), and a tumor of the anal canal - with the same frequency in both sexes, although statistically there were differences in the distribution of patients by gender with different types of colorectal cancer. localization were not significant (chi square = 3.41, n.d.), which is probably due to the predominance of patients with rectal cancer, and a significant predominance of men in this group of patients (58.13%). Gender distribution of patients with colorectal cancer of various localizations registered at the Republican Specialized Scientific-Practical Medical Center of Oncology and Radiology of the Andijan branch in 2019, by tumor location.

Figure 2. Gender distribution of patients with colorectal cancer of various localizations who were registered at the RSSPMCOR of te Andijan in 2019, by tumor location (chi square = 3.41, n.d.)
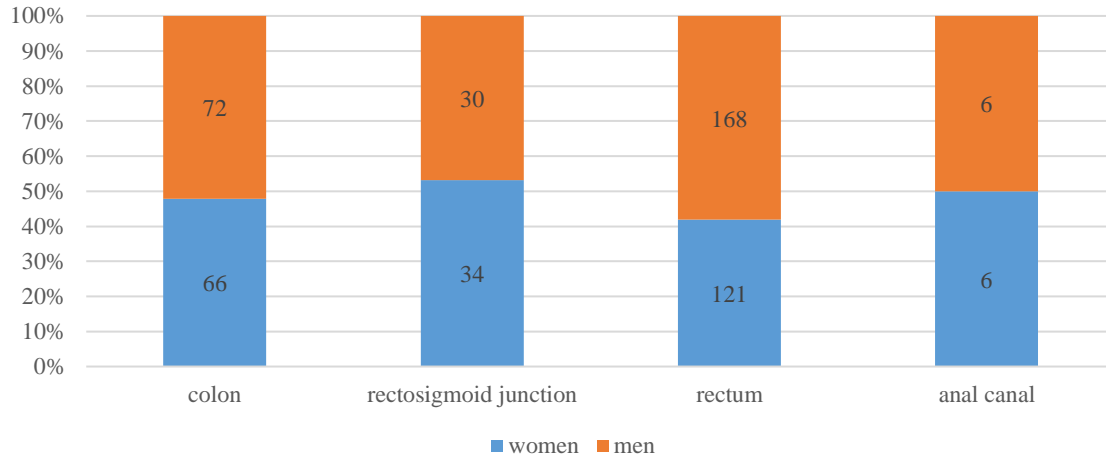
The distribution of CRC patients by urbanization indicator was also studied (Fig. 3). So, in general, among all patients in the Andijan region who were registered with the Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology in 2019, rural residents predominated (71.17%), which may be due to late applications and less accessibility of medical care, including primary screening. The predominance of rural residents was typical for all CRC locations (intergroup differences in urbanization indicator depending on tumor location: chi square = 1.70, n.d.).

RSSPMCOR of te Andijan

Figure 3. Distribution of patients with colorectal cancer of various localizations who were registered at the RSSPMCOR of the Andijan in 2019 according to the urbanization indicator (chi square = 1.70, n.d.)
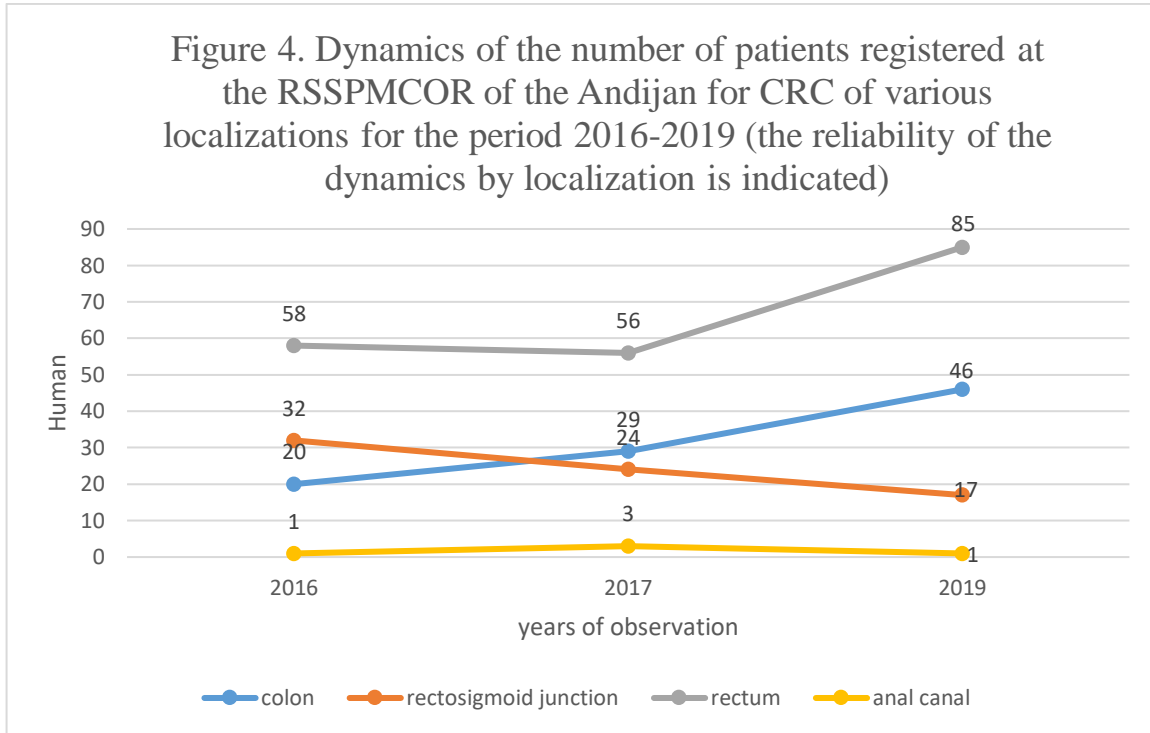
In 2019, 149 patients with colorectal cancer were registered, which amounted to 29.62% of all patients with colorectal cancer registered in that year. Of all patients with malignant neoplasms registered in 2019, CRC was 7.45%. The incidence was 4.9 per 100,000 population (Table 1).
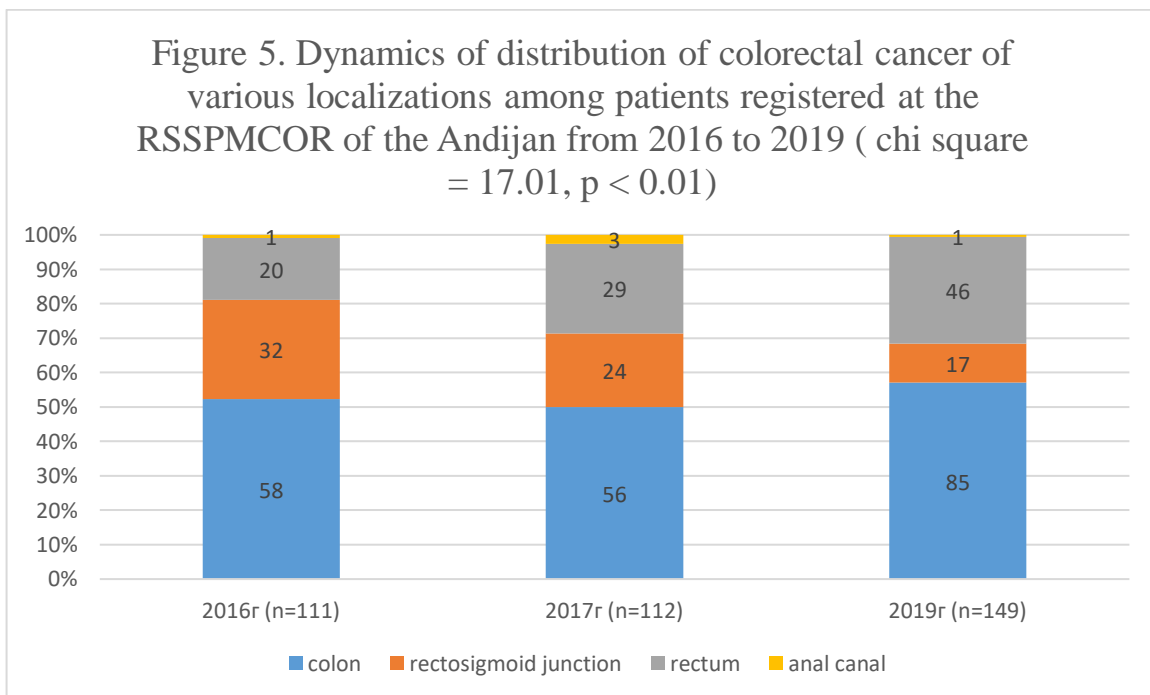
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Table 1

The number of patients with colorectal cancer registered in 2019 in the Andijan region, depending on age, gender and tumor location

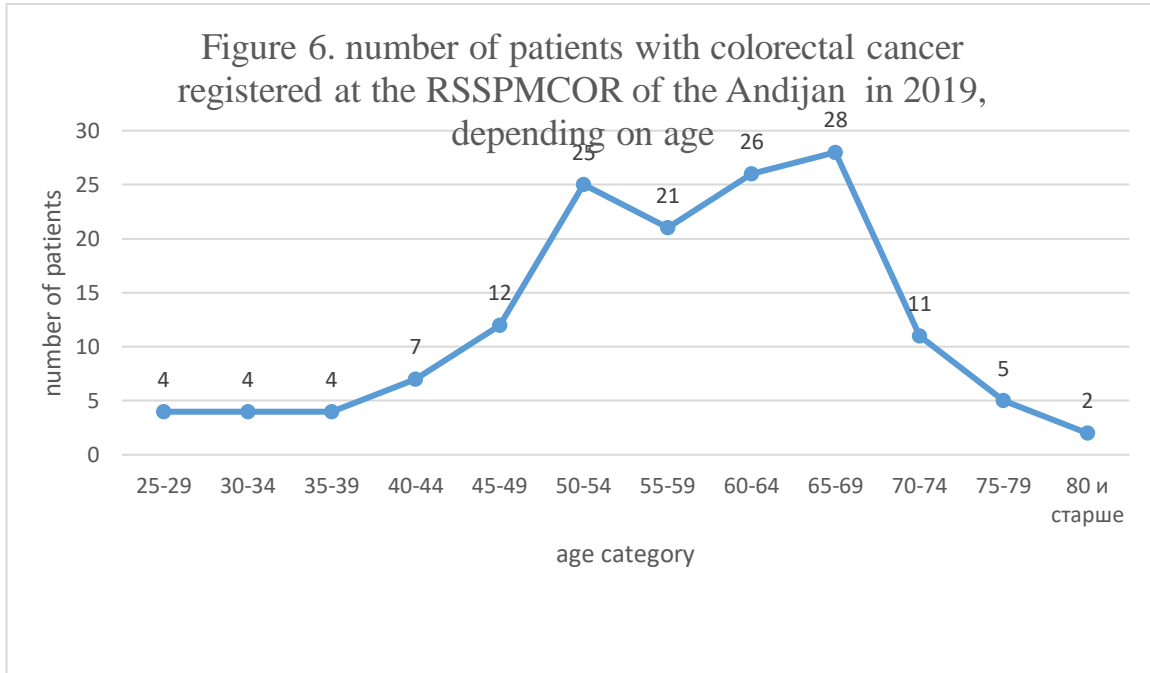| Age, Years	Gender	Colon	Rectosigmoid Junction	Rectum	anal canal
25-29	Man	2	0	1	0
	Women	1	0	0	0
30-34	Man	2	0	1	0
	Women	0	0	1	0
35-39	Man	0	0	0	0
	Women	2	0	2	0
40-44	Man	1	1	2	0
	Women	1	1	1	0
45-49	Man	2	0	2	0
	Women	1	0	7	0
50-54	Man	2	2	9	0
	Women	6	1	4	1
55-59	Man	2	2	11	0
	Women	3	2	1	0
60-64	Man	7	1	9	0
	Women	3	1	5	0
65-69	Man	2	3	10	0
	Women	6	0	7	0
70-74	Man	1	1	4	0
	Women	1	0	4	0
75-79	Man	1	2	1	0
	Women	0	0	1	0
80 And Older	Man	0	0	1	0
	Women	0	0	1	0

An assessment of the dynamics of incidence over 4 years showed that in the period from 2016 to 2019, the incidence of colorectal cancer significantly increased from 3.75 to 4.86 per 100,000 population (chi square = 6.05, $p < 0.05$). Analysis of the dynamics of incidence by location showed that the incidence of colorectal cancer during the observed period increased significantly (chi square = 10.02, $p < 0.01$, for colon and chi square = 6.76, $p < 0.05$ for rectum), while the incidence of anal canal cancer did not change significantly, and cancer of the rectosigmoid junction decreased insignificantly (Fig. 4).

Figure 4. Dynamics of the number of patients registered at the RSSPMCOR of the Andijan for CRC of various localizations for the period 2016-2019 (the reliability of the dynamics by localization is indicated)
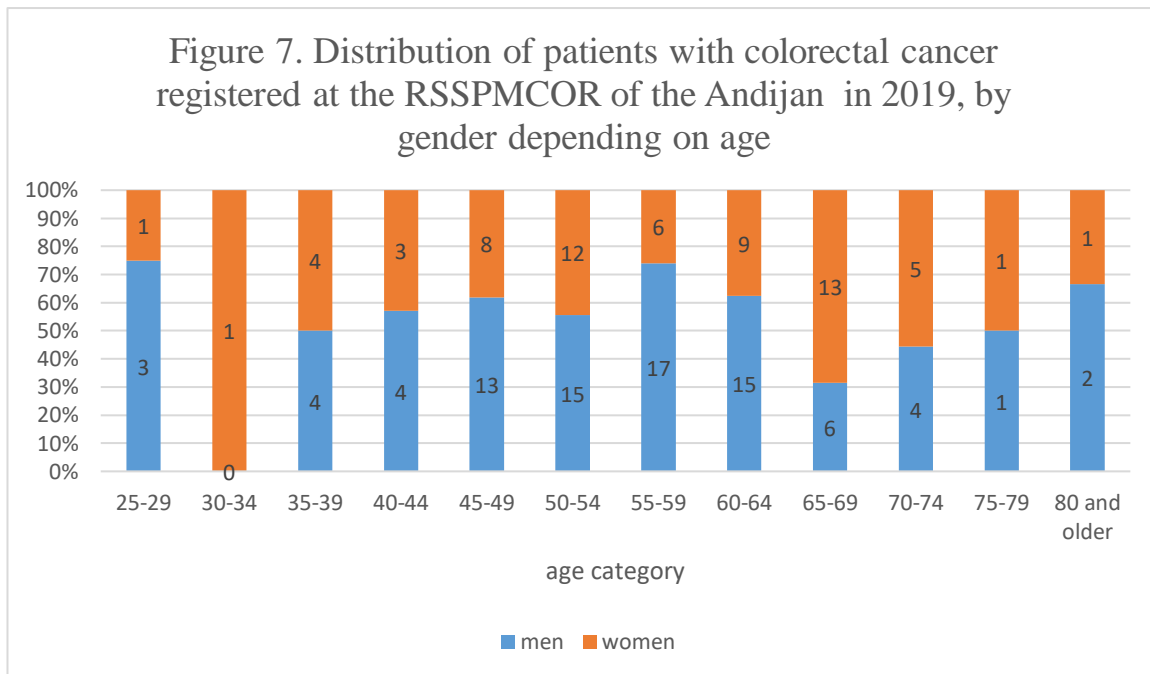
As a result of differences in the dynamics of the incidence of CRC of different localizations, the frequency characteristics of various CRC localizations significantly changed (chi square = 17.01, p <0.01): the proportion of patients with damage to the colon increased from 52.25% to 57.05% and to the rectum from 18.02% to 30.87% due to a decrease in the proportion of cancer of the rectosigmoid junction from 28.83% to 11.41% (Fig. 5).

Figure 5. Dynamics of distribution of colorectal cancer of various localizations among patients registered at the RSSPMCOR of the Andijan from 2016 to 2019 (chi square = 17.01, p < 0.01)
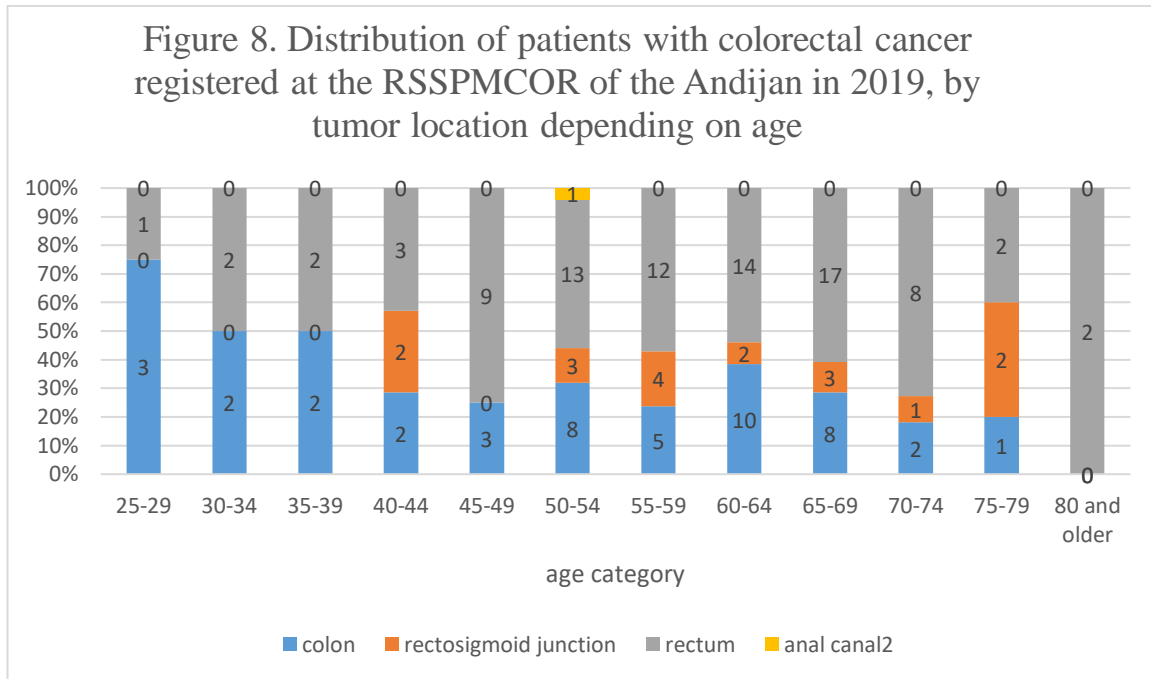
The distribution of patients registered in connection with diagnosed CRC by age (Fig. 6) did not reveal a single case of the disease in persons under 25 years of age. The peak incidence occurs in people aged 50-70 years. In this age range, 100 patients were registered (67.11% of all patients registered in 2019), while 31 patients (20.81%%) were registered under 50 years of age (25-54 years), in 70 years and older – 18 patients (12.08%).

Figure 6. number of patients with colorectal cancer registered at the RSSPMCOR of the Andijan in 2019, depending on age
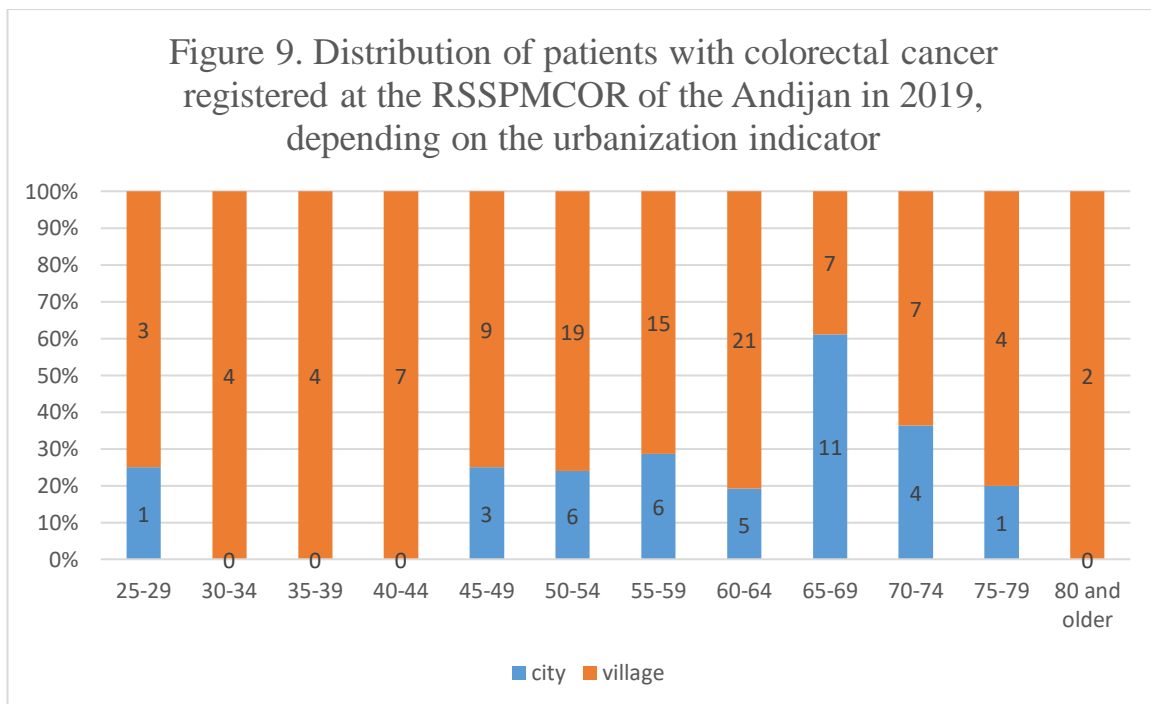
The distribution of colorectal cancer patients of different ages by gender (Fig. 3.7) revealed that in the age group under 55 years women slightly predominated (29 versus 27 people), and in the older age group - men (58 versus 35 people), but the differences were not significant (chi square=2.86, n.d.).

Figure 7. Distribution of patients with colorectal cancer registered at the RSSPMCOR of the Andijan in 2019, by gender depending on age

The relative proportions of CRC of various localizations also did not differ depending on the age of patients (Fig. 8). Thus, in patients under 55 years of age, lesions of the colon were diagnosed in 20 cases out of 56 (35.71%), recto-sigmoid - in 5 cases (8.93%), rectum - in 30 cases (53.57%) and anal canal – in 1 case (1.79%); in patients 55 years of age and older (93 people), the frequency of CRC of various localizations was, respectively, 26.12.55 and 0 people (27.96%, 12.90%, 59.14% and 0%, respectively, chi square =3.02, n.d.).

Figure 8. Distribution of patients with colorectal cancer registered at the RSSPMCOR of the Andijan in 2019, by tumor location depending on age

Identification of rural residents (112 people) among all patients with colorectal cancer registered in 2019 revealed that 75.17% of patients were rural residents. Among rural residents, the share of men was 58.04% (65 out of 112 people), among urban residents - 54.05% (20 out of 37, chi square = 0.21, n.d.). No differences were found in the relative proportion of rural residents depending on the age category of patients (Fig. 9).

Figure 9. Distribution of patients with colorectal cancer registered at the RSSPMCOR of the Andijan in 2019, depending on the urbanization indicator

CONCLUSIONS

In general oncology statistics, CRC is 6.72% in the Andijan region, while in other countries it is 11% [11, 12]. Among the patients, men predominate (54.87%), which corresponds to world data. However, although international statistics report that patients who are more susceptible to colorectal cancer are those who lead a sedentary lifestyle, those who are obese, those who eat processed foods, that is, patients who are characterized by an urban lifestyle. However, in the population of the Andijan region, colorectal

cancer was more common among rural residents (71.17%), although in the general population structure the shares of urban and rural residents are comparable.

The incidence of colorectal cancer was 4.9 cases per 100,000 population, and over the analyzed 4-year period, the incidence increased by 30.67% (from 3.75 to 4.9 cases per 100,000 population) due to an increase in the incidence of colorectal cancer. The age distribution showed that the peak incidence occurs at the age of 50-69 years (67.11% of all CRC cases).

The active detection rate according to the analyzed statistical data, although it increased over 4 years of observation, was only 25.5%. Such low active detection was associated with insufficient detection of patients with the first stage of colorectal cancer (6.04%), which limits the possibility of using organ-preserving and minimally invasive treatment.

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