Original Article
Cent Asian J Med Sci. 2022 June;8(2):80-89. https://doi.org/10.24079/CAJMS.2022.06.002

Central Asian Journal of Medical Sciences
CAJMS

Research Results on Survival Rate for Postoperative Colon Cancer Surgery

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Submitted: April 13, 2022
Revised: May 17, 2022
Accepted: May 25, 2022

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Objective: Although the incidence of colorectal cancer is relatively low in Mongolia, the postoperative survival rate has not been fully studied. Thus, we have aimed in the present study to analyze the survival rate after surgical treatment of colorectal cancer. **Methods:** We studied the patient history of all patients who underwent surgery in the General Surgery Department, National Cancer Center of Mongolia from January 2013 to December 2015 and evaluated the results. **Results:** The average survival rate of all patients was 42 months or 95 %. In patients with colorectal cancer, the 5-year survival rate after surgery was 59.3 %. By stages, the percentage of patients diagnosed in stage I was 100 %, in stage II 75 %, in stage III 64.4 %, and in stage IV 12.5 %, and the survival rate varied from stage to stage. It was also found that early diagnosis was directly related to survival rate ($p = 0.000$). Furthermore, the outcome of postoperative chemotherapy had a direct effect on the postoperative survival rate ($p = 0.000$). The average survival rate is 1280 days 1172.7 - 1389.06 (95 % conf. Interval), 42 months 38.5 - 45.6 (95 % conf. Interval), 3.5 years 3.2 - 3.8 (95 % conf. Interval), which was relatively high compared to other cases of cancer. In addition, the survival time is statistically related to the outcome of surgery and postoperative treatment ($p = 0.000$). **Conclusion:** The results of our study show that viability decreases statistically in later stages of cancer manifestation.

Keywords: Colorectal Neoplasms, Survival Rate, Postoperative, Surgery, Colon Cancer, Rectal Tumors

Introduction

Colorectal cancer is the third most diagnosed cancer and the second leading cause of cancer death. More than 1.93 million people were diagnosed in 2020 worldwide, and scientists project that the case number will increase to 3.2 million by 2040 [1, 2]. The main reason for this high prevalence can be explained by the generally asymptomatic characteristic of the early stage of colorectal cancer. The risk factors of colorectal cancer include genetic and environmental aspects. High consumption of animal fats and a low supply of vegetables and fruits are often correlated with obesity and overweight, which in turn increase the risk of colorectal cancer. Silva et al. demonstrated that visceral obesity adversely affects the prognosis of colorectal cancer in men [3].

Further, in the study by Arnold et al. it has been reported that the five-year survival rate is 90 percent at an early-stage of diagnosis compared with 13 percent at a late-stage diagnosis [4].

In 2019, 5981 new cases of cancer were registered in Mongolia and in that year the cancer mortality number was 4559. Of 72.5 % of cancer patients diagnosed in late stages, 60 % of the cases died in less in a year. Based on the International Classification of Diseases-10, after sorting into 21 groups, cancer was in 14th place in Mongolia and the 2nd leading cause of death. The incidence of cancer has increased by 34 over the past 10 years, and the number of cases per capita has become 212 per 10,000 in 2019 [5, 6]. Colorectal cancer is the leading cause of death, with the number of cases steadily increasing in recent years. According to the statistics diagnosed at the National Cancer Center of Mongolia, colon cancer accounts for 3.6 % of all cancer cases in the last 5 years [7]. In the clinical data between 1996 and 2015 from the Korea Central Cancer Registry by Hur et al. the percentage of patients with colon cancer increased from 49.5 % to 66.4 %, while the percentage of patients with rectal cancer decreased from 50.5 % to 33.6 %. The 5-year relative survival rates for all CRCs improved from 58.7 % in 1996-2000 to 75.0 % in 2011-2015 [8]. Colorectal cancer statistics in China during the last decade showed that age-standardized incidence rate was increased from 14.25 per 100,000 in 1990 to 25.27 per 100,000 in 2016 (AAPC = 2.34, 95 % confidence interval [CI] 2.29, 2.39). Moreover, cancer deaths increased from 81.1 thousand in 1990 to 167.1 thousand in 2016. The authors concluded that colorectal cancer incidence in China would further increase in the near future [9]. Further, according to Tamakoshi et al. the Japanese 5 - year cumulative survival rate for colon cancer was 73.0 % (95 % CI; 70.1 – 75.7) and the 5-year relative survival rate was 80.6 % (95 % CI; 77.4 – 83.6), respectively. For rectal cancer, the rates were 73.3 % (95 % CI; 69.1 – 77.0) and 80.9 % (95 % CI; 76.3 – 85.0), in the same order. It has also been shown that rectal cancer patients tended to eat more meat and less green leafy vegetables when compared with all colon cancer patients. Lifestyle factors such as consuming less green leafy vegetables, being overweight, smoking, not consuming alcoholic beverages, and being physically inactive were found to be related to poor survival [10].

The review described the prevalence of CRC in Asia according to the International Agency for Research on Cancer from the World Health Organization (WHO) database showing that even though the overall prevalence of CRC is reported to be low in Asia when compared with that in Western nations, yet it had the highest number of prevalent cases. The risk factors included such things as family history, body height, smoking, alcohol drinking, weight, a Westernized diet, physical inactivity, chronic diseases, microbiota, and some genetic factors [11]. To date, even though the number of cases of colorectal cancer is not particularly high, there has been no study that has examined the colorectal cancer prevalence in Mongolia, and survival rate after surgery has not been investigated so far. Therefore, in the present study, we have aimed to study the postoperative survival rate of colorectal cancer patients in Mongolia.

Materials and Methods

Research design

A total of 162 patients diagnosed with colorectal cancer at the National Cancer Center of Mongolia and undergoing surgery from 2012 to 2015. Among them 108 patient's medical history information was fully available for analysis. A hospital based retrospective study was conducted. Operations performed, blood volume lost during surgery, early complications, and cancer stages were calculated [7]. At 4, 8, 12 weeks after the start of treatment, the clinical examination, physical examination (ECOG), as well as blood test, biochemistry, and analysis of oncological markers (AFP) were rechecked, and after that, every 12th week, we did a computer tomography and assessed the progress of the study. Laboratory samples were analyzed in a laboratory with accredited equipment. All clients were assessed and analyzed according to the survey guidelines. Participants in the study were screened every 6 months and those who did not call back or whose phones were switched off were excluded from the study. The deceased study participants were identified through feedback by calling the family. Survival was calculated from the time of surgery to the time of death after surgery.

Statistical analysis

An unpaired t-test was carried out for continuous variables to compare the mean between two groups. For categorical variables, Pearson Chi-square test was conducted. Multiple logistic regression was carried out for identifying the factors influencing PCOS. Cox proportional hazard model was done

for survival analysis. Statistical significance was determined at a p-value lower than 0.05. STATA 14 program was used for statistical analysis.

Ethical statement

The study was approved by the Research Ethics Committee of Ach Medical School on January 4, 2021 (No.2021/1/04). All patients provided written informed consent before participating in this study.

Results

The survival rate of patients with colorectal cancer depends on the stage of cancer. We analyzed the influence of social and demographic connections and lifestyle on the patient's viability (Table 1). By age group, colorectal cancer is diagnosed in people over 50 years of age in 72 % of all cases.

The average life expectancy is about 53 months (47.12 - 58.88) and appears at 95 % intervals. Other risk factors are suggested in 18 % (p = 0.240) of all cases in people under the age of 50 who have been diagnosed with colorectal cancer. By gender, 52 (48.1 %) patients were male, and 56 (51.8 %) patients were female. Gender did not affect the survival rate and was not statistically significant (p = 0.788).

On the other hand, BMI and DFS day was significantly correlated to survival rate. The average length of a hospital stay after surgery was 11 days, where the minimum length of a hospital stay after surgery was 4 days, and the maximum was 30 days. Hospital stay was not statistically related to survival rate (p = 0.967). Regardless of the type of surgery, in the 108 patients

Table 1. General characteristics of the study population.

Variables	Alive (n = 64) Mean ± SD	Died (n = 44) Mean ± SD	Total (n = 108) Mean ± SD	p-value
Age, year	56.95 ± 13.23	59.75 ± 11.84	58.09 ± 12.70	0.253
BMI, kg	23.18 ± 3.12	24.58 ± 3.74	23.75 ± 3.44	0.044
T-protein	68.49 ± 6.31	68.78 ± 6.97	68.61 ± 6.56	0.825
Albumin	38.66 ± 5.25	39.85 ± 6.06	39.15 ± 5.60	0.291
Operation time, min	105.31 ± 31.26	108.64 ± 49.73	106.71 ± 39.64	0.696
Blood loss, ml	112.81 ± 31.59	109.54 ± 41.65	111.48 ± 35.88	0.661
Hospital stay, days	12.17 ± 4.19	12.14 ± 4.61	12.15 ± 4.34	0.967
Survival day	1630.89 ± 308.21	568.5 ± 485.04	1198.06 ± 652.31	0.000
Overall survival day	1661.26 ± 240.51	733.11 ± 423.73	1283.13 ± 562.26	0.000
Tumor size	5.76 ± 4.10	6.07 ± 3.91	5.89 ± 4.01	0.693
Gender	**N (%)**	**N (%)**	**N (%)**	
Male	32 (50.0)	20 (45.5)	52 (48.1)	0.788
Female	32 (50.0)	24 (54.5)	56 (51.8)	
Smoking				
Yes	16 (25.0)	11 (25.0)	27 (25.0)	0.999
No	48 (75.0)	33 (75.0)	81 (75.0)	
Family history				
Yes	12 (18.7)	10 (22.7)	22 (20.4)	0.794
No	52 (81.3)	34 (77.3)	86 (79.6)	
Virus				
No	54 (84.4)	37 (84.1)	91 (84.3)	
B	1 (1.6)	2 (4.5)	3 (2.8)	
C	8 (12.5)	4 (9.1)	12 (1.1)	
Dual	1 (1.6)	1 (2.3)	2 (1.8)	

Table 2. The stages of cancer according to the TNM system and cell differentiation.

Variables	Alive 1 (n = 64)	Died 2 (n = 44)	Total (n = 108)	p-value
Stages	**N (%)**	**N (%)**	**N (%)**	
T1	4 (6.3)	-	4 (3.7)	
T2	9 (14.1)	3 (6.8)	12 (11.1)	
T3	49 (76.6)	27 (61.4)	76 (70.4)	
T4	2 (3.1)	14 (31.8)	16 (14.8)	
Differentiation				
Well	25 (39.1)	11 (25.0)	36 (33.3)	0.254
Moderately	28 (43.8)	21 (47.8)	40 (45.4)	
Poorly	11 (17.2)	12 (27.3)	23 (21.3)	

T-Tumor; N-nodes; M-metastasis

Table 3. Sites of distant and regional metastasis in colon cancer.

Variables	Alive (n = 64)	Died (n = 44)	Total (n = 108)	p-value
Regional metastasis	**N (%)**	**N (%)**	**N (%)**	
No	12 (18.6)	2 (4.5)	14 (12.9)	0.054
Near organs	49 (76.6)	37 (84.1)	86 (79.6)	
Para aortal	3 (4.7)	5 (11.4)	8 (7.4)	
Distant				
No	63 (98.4)	30 (68.2)	93 (86.1)	
Liver	-	11 (25.0)	11 (10.2)	
Ovarium	1 (1.6)	1 (22.7)	2 (1.9)	
Other organs	-	2 (4.5)	2 (1.9)	

undergoing surgery, the mean bleeding during surgery was 100 ml. The minimum bleeding was 50 ml and the maximum bleeding during the operation was 200 ml, which means this type of surgery is associated with less bleeding risk and surgeon experience. Bleeding during surgery was not statistically significantly associated with survival rate ($p = 0.644$).

The surgical stage was classified according to the international AJCC 8th classification. All 108 study participants had cancers in T1-3, T2-12, T3-76, and T4-16 stages (Table 2). Of these, advanced cancer was in 85.18% ($p = 0.000$). Of all types of surgery, 93 (87.2 %) were radical or perfect surgeries, and 14 (12.8 %) were palliative or imperfect surgeries ($p = 0.000$). Regarding the types of preoperative and postoperative biopsies of the study participants, 36 had cell types well-differentiated, 40 had cells moderately differentiated, and 22 had cells poorly differentiated.

Regional lymph nodes were examined and there was no spread in 12 cases in group 1 compared to 2 cases in group 2. Moreover, 98.4 % in group 1 had no distant metastases while there were 25 % metastases to the liver and 22.7 % to the ovarium for group 2 (Table 3). Local cancer was detected in 1, signet ring cells were seen in 1, and infiltration and differentiation with other types of cancers were determined in 4 of all cases, respectively. A patient, who was found to have liver metastases, underwent palliative surgery, received chemotherapy after surgery, and underwent complete liver resection and is still being monitored by our doctors.

A total of 106 operations were open, and 2 were endoscopic (Table 4). A stoma operation, where an artificial bowel diversion is made, was performed on 33 (30.6 %) patients. Viability was not statistically associated with bowel stoma surgery ($p = 0.010$). In our study, the average life expectancy was 42 months

Table 4. Surgical procedures and post-operative conditions.

Variables	Alive (n = 64)	Died (n = 44)	Total (n = 108)	p-value
Operations	**N (%)**	**N (%)**	**N (%)**	
Right hemicolectomy	26 (40.6)	14 (31.8)	40 (37.0)	0.011
Left hemicolectomy + sigmoidectomy	13 (20.3)	9 (20.5)	22 (20.4)	
High and low anterior resections	12 (18.8)	5 (11.4)	17 (15.7)	
APR + Hartman's procedure	3 (4.7)	9 (20.5)	12 (11.1)	
Other	10 (15.6)	7 (15.9)	17 (15.7)	
Radical surgery				
Palliative	1 (1.6)	12 (27.3)	13 (12.0)	0.000
Radical	63 (98.4)	32 (72.7)	95 (87.9)	
Post-operative liver recurrence				
Liver metastasis	2 (3.1)	24 (54.5)	26 (24.1)	0.000
No liver metastasis	62 (96.9)	20 (45.5)	82 (75.9)	
Post-operational complication				
No complication	61 (95.3)	40 (90.9)	101 (93.5)	
Ascites	-	2 (4.5)	2 (1.9)	
Ileus	1 (1.6)	-	1 (0.9)	
Peritonitis	1 (1.6)	1 (2.3)	2 (1.9)	
Wound infection	1 (1.6)	1 (2.3)	2 (1.9)	

Table 5. Chemotherapy and recurrence of colon cancer.

Variables	Alive (n = 64)	Died (n = 44)	Total (n = 108)	p-value
Chemotherapy	**N (%)**	**N (%)**	**N (%)**	
No	5 (7.8)	6 (13.6)	11 (10.2)	0.000
1 - 4 times	24 (37.5)	32 (72.7)	56 (51.9)	
5 - 8 times	33 (51.6)	5 (11.4)	38 (35.2)	
8 <	2 (3.1)	1 (2.3)	3 (2.8)	
Recurrence				
No	59 (92.2)	2 (4.5)	61 (56.5)	
Yes	-	27 (61.4)	27 (25.0)	
Palliative	2 (3.1)	11 (25.0)	13 (12.0)	
Metastasis	3 (4.7)	4 (9.1)	7 (6.4)	

95 % CI (38.55 - 45.66). In patients with colorectal cancer, the five-year survival after surgery was 59.3 %. Life expectancy was related to cancer stage at the time of diagnosis, where viability was 100 % at stage I, 75 % at stage II, 64.4 % at stage III, and 12.5 % at stage IV, meaning early diagnosis of the disease was associated with improved patient viability (p = 0.000).

In Table 5, we have shown the post-operative chemotherapy and cancer recurrence of the patients. As can be seen here, there were 59 cases of non-recurrence in group 1, while there were only 2 cases in group 2. Both the post-operative chemotherapy and cancer recurrence were significantly correlated with the survival of the patients.

Table 6. Multiple logistic regression model for odds in colon cancer.

Variables	OR	95% CI	p-value
Age, years	1.13	0.93 - 3.21	0.063
BMI, kg	2.31	1.05 - 15.32	0.031
T - protein	1.03	0.42 - 4.62	0.099
Alb	1.92	1.72 - 14.81	0.080
Tumor size	5.32	2.82 - 11.14	0.001
Sex			
Female	1.00	Reference	
Male	2.00	1.00 - 2.50	0.482
Smoking			
No	1.00	Reference	
Yes	1.89	0.41 - 14.81	0.184
Alcohol			
No	1.00	Reference	
Yes	2.15	0.83 - 3.28	0.921
Family history			
No	1.00	Reference	
Yes	1.15	1.0 - 4.30	0.842

Table 7. Effect measures for time-to-event (survival) outcomes.

Time	Risk	Event	Survival %	SE	95 % CI
0	108	12	88.9	0.030	83.2 - 95.0
60	96	1	88.0	0.031	82.0 - 94.3
200	95	1	87.0	0.032	80.9 - 93.6
300	94	1	86.1	0.333	79.8 - 92.9
330	93	1	85.2	0.034	78.7 - 92.2
365	92	1	84.3	0.035	77.7 - 91.4
395	91	1	83.3	0.036	76.6 - 90.7
404	90	1	83.3	0.037	75.5 - 89.9
425	88	1	81.5	0.037	74.5 - 89.1
485	87	2	79.6	0.039	72.3 - 87.6
600	85	1	78.7	0.040	71.3 - 86.8
605	84	2	76.8	0.041	69.2 - 85.2
635	82	1	75.9	0.041	68.2 - 84.4
730	81	1	74.9	0.042	67.2 - 83.6
760	79	2	73.0	0.043	65.1 - 81.9
790	77	1	72.1	0.043	64.1 - 81.1
820	76	1	71.1	0.044	63.0 - 80.2
910	75	2	69.2	0.045	61.0 - 78.5
1030	73	2	67.3	0.045	59.0 - 76.8
1095	71	2	65.4	0.046	57.0 - 75.1
1110	69	1	64.5	0.046	56.0 - 74.2
1155	68	2	62.6	0.047	54.0 - 72.5
1245	65	1	61.6	0.047	53.0 - 71.6
1365	57	1	60.5	0.048	51.9 - 70.6
1460	45	1	59.2	0.048	50.4 - 69.5
1700	31	1	57.3	0.050	48.2 - 68.1

Table 8. Multivariable Cox proportional hazards model for overall survival duration.

Variable	HR	95 % CI	p-value
Age, years	1.04	0.98 - 1.09	0.302
Protein	1.01	0.96 - 1.06	0.491
Size	1.02	0.99 - 1.93	0.098
Age			
Under 58 years old	1.00	Reference	
Over 58 years old	1.25	1.01 - 2.27	0.051
Sex			
0	1.00	Reference	
1	1.28	0.71 - 2.32	0.481
Family history			
No	1.00	Reference	
Yes	1.17	0.57 - 2.39	0.631
Smoking			
No	1.00	Reference	
Yes	1.12	0.50 - 2.51	0.782
Liver resection			
No	1.00	Reference	
Yes	1.31	0.68 - 2.97	0.913

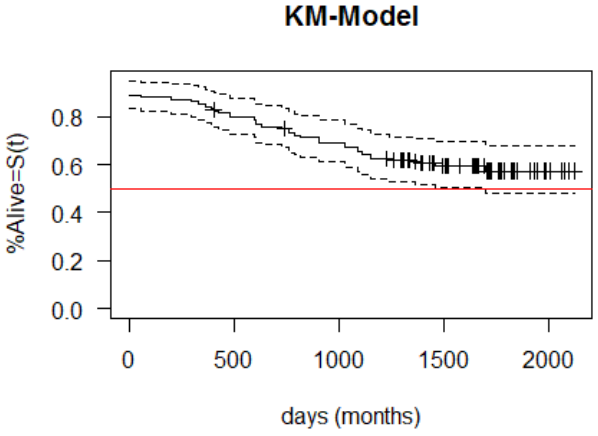

Figure 1. Survival (survivor) function estimated by the Kaplan-Meier method, including 95 % confidence bands.

Discussion

It has been demonstrated that annually more than 945,000 people develop colorectal cancer worldwide, and around 492,000 patients die. The prognosis of colorectal cancer depends on factors related to the patient, treatment, and tumor [12 - 17].

Numerous studies reported that post-operative complications can have a significant impact on overall survival and colorectal cancer recurrence [18 - 22]. Sugita et al. demonstrated that the 5-year postoperative overall survival (OS) of 170 colitis-associated colorectal cancer patients was 74.2 % which was similar to sporadic colorectal cancer in Japan (72.1 %). Pathologic TNM stage, histological type, type of surgical procedure (proctocolectomy, segmental resection), and preoperative cancer surveillance were statistically significant factors for overall survival [23]. In our present study, post-operative viability in patients with colorectal cancer who are monitored at the National Cancer Center of Mongolia was similar to the results of studies in other Asian countries. The assessment of postoperative viability has the property of providing information on the results of treatment and improving further treatment. Even though in our country 80 % of all cases of colorectal cancer are diagnosed mainly in the late stage of cancer, postoperative viability was 61.2 %. This result is similar to other Asian countries: 62.1 % in Korea, 73 % in Japan [23, 24]. Therefore, the development and implementation of programs for early diagnosis of the disease in our country can be an important way to further improve the prevention, early

diagnosis, and effective treatment of cancer. At the end of the study, the average life expectancy of patients with cancer was 42 months on average. In patients with colorectal cancer, the five-year survival after surgery was 59.3 %. Survival was distributed differently, depending on the stage of the disease. In patients diagnosed with stage I cancer, five-year survival after surgery was 100 %, in stage II was 75 %, in stage III it was 64.6 %, in stage IV was 12.5 %, and it was found that early diagnosis was directly related to survival rate ($p = 0.000$).

Studies have shown that postoperative chemotherapy outcomes have a direct impact on postoperative survival. In the present study, we have determined that the effectiveness of postoperative chemotherapy directly affects postoperative viability ($p = 0.000$). Chemotherapy was given several times, and in a few cases, chemotherapy was given involuntarily. A standard course of chemotherapy is given about 4 - 6 times, and standard chemotherapy has been shown to increase survival. In a medical history survey asking if there was a person in the family who had cancer, 22 (20.3 %) patients answered yes, while 86 (79.6 %) answered no. Therefore, we conclude that heritability was not statistically significant for the survival rate ($p = 0.618$). These statistics show how social and demographic attitudes and lifestyles influence resilience.

Some studies have shown that smoking is a risk factor. Yang et al. presented that a history of smoking was associated with left-sided colorectal cancer (95 % CI, 1.16 – 1.34; $p = 0.001$). Longer duration and a larger total amount of cigarette smoking were more associated with left-sided colorectal cancer [25, 26]. However, in our study, in a survey on tobacco use, relatively few, 27 patients or 25 % of all cases, answered yes, while 81 people or 75 % said no. Recently, tobacco consumption in Mongolia has increased dramatically, and with it, the number of other diseases is on the rise. In particular, chronic smokers are thought to have a 30 % increased risk compared to non-smokers. Further, obesity, sedentary lifestyle, red meat consumption, alcohol, and tobacco are considered to be the main environmental factors in the growth of colorectal cancer. A population-based, prospective cohort study showed that waist-to-hip ratio associated risk remained significant for an increased risk of colon cancer in men in China [16]. The meta-analysis included 47 studies published in PubMed also revealed that the relative risk for colorectal cancer was 1.04 [95 % (CI) 1.02 - 1.05, $I^2 = 91$ %] per 5 cm increase in height, 1.02 [95 % (CI) 1.01 - 1.02, $I^2 = 0$ %] per 5 kg increase in weight, 1.06 [95 % (CI) 1.04 - 1.07, $I^2 = 83$%] per 5 kg/m^2 increase in BMI, 1.02 [95 % (CI) 1.02 - 1.03, $I^2 = 4$ %] per 10 cm increase in waist circumference, 1.03 [95 % (CI) 1.01 - 1.05, $I^2 = 16$ %] per 0.1 unit increase in waist to hip ratio. The significant association between height and CRC risk was similar in men and women [17]. According to body mass index (BMI), there were 3 lean patients with < 18.5 BMI, 64 patients with normal weight or 18.5 - 24.9 according to BMI, 34 patients with overweight or 25 - 29.9 according to BMI, 7 patients with a BMI of 30 - 34.9 underwent surgery, and there were no obese patients with BMI of < 40 who underwent surgery, respectively. In our study, BMI did not affect patient survival rate ($p = 0.277$).

Moreover, cell types of preoperative and postoperative tissue analysis were associated with patient survival rates and were statistically significant ($p = 0.046$). Compared to patients with well-differentiated biopsy, the survival rate was low in those with moderately to poorly differentiated.

In our study, irrespective of the type of surgery, all 108 participants who underwent surgery had an average surgery time of 106 minutes. The minimum duration of the operation was 30 minutes, and the longest operation lasted 206 minutes (3 hours 26 minutes). We compare the average life expectancy concerning survival rate, which showed that did not affect the survival rate of the patient, where the p-significance was equal to 0.671.

Our study has some limitations. At first, since the information was collected from previous medical records, due to the lack of feedback from some patients, the number of patients for follow-up was insufficient. Second, we have not included questionnaires such as physical inactivity and diet in the present study. Recent studies reported a genetic correlation in Asian populations, where some loci, for example, 6p21.1 (rs4711689), 8q23.3 (rs2450115, rs6469656), 10q24.3 (rs4919687), and 12p13.3 (rs11064437) were associated with the risk of CRC in East Asian population [26]. Therefore, efforts to increase the sample size and screening uptake will be important for future research regarding the colorectal cancer burden in Mongolia.

Conclusions

The results of our study show that viability decreases statistically in later stages of cancer manifestation. The average life expectancy after surgery was about 1280 days (95 % CI 1172.7 - 1389.06), 42 months 38.5 - 45.6 (95 % CI 38.5 - 45.6), 3.5

years (95 % CI 3.2 - 3.8). This relatively high result compared to other types of cancer indicates that the association between surgical outcome and postoperative treatment was statistically significant ($p = 0.000$).

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