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The Effect of Venous Port Catheter Use on Quality of Life in Colorectal Cancer Patients: Descriptive Study

Kolorektal Kanserli Hastalarda Venöz Port Kateter Kullanımının Yaşam Kalitelerine Etkisi: Tanımlayıcı Çalışma

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ABSTRACT Objective: This study was conducted to determine the effect of venous port catheter use on quality of life in patients with colorectal cancer. **Material and Methods:** This descriptive and prospective study was conducted between April-July 2022 with a total of 169 patients diagnosed with colorectal cancer. Patient identification form, Diagnostic Form for Venous Port Catheter Use in Daily Life in Patients with Cancer, Quality of Life Questionnaire-Cancer and Quality of Life Questionnaire in Colorectal Cancer Patients were utilized for data collection. Independent samples t-test; one-way analysis of variance test was used as statistical test methods. **Results:** The mean age was 55.51±9.9 years. The duration of venous port catheter use was between 0-6 months in 45.6% of the patients. Patients receiving FOLFIRI and FOLFOX treatment were the majority (94%). Almost all of the patients stated that the use of venous port catheter did not negatively affect their activities of daily living. It was found that the general quality of life scale scores of colorectal cancer patients were high, but the disease-specific quality of life scale scores were low due to the abundance of symptoms they experienced. **Conclusion:** It was observed that the use of venous port catheter did not negatively affect the daily living activities of the patients.

Keywords: Colorectal cancer; venous port catheter; quality of life

ÖZET Amaç: Bu çalışma, kolorektal kanserli hastalarda venöz port kateter kullanımının yaşam kalitesi üzerine etkisini belirlemek amacıyla yapıldı. **Gereç ve Yöntemler:** Tanımlayıcı ve prospektif olan bu çalışma, kolorektal kanser tanısı almış toplam 169 hasta ile Nisan-Temmuz 2022 tarihleri arasında gerçekleştirildi. Veri toplamada hasta tanıtım formu, Kanserli Hastalarda Günlük Yaşamda Venöz Port Kateter Kullanımı Tanılama Formu, Kanserli Hastalarda Yaşam Kalitesi Ölçeği ve Kolorektal Kanserli Hastalarda Yaşam Kalitesi Ölçeği kullanıldı. İstatistiksel test yöntemleri olarak bağımsız örneklem t-testi ve tek yönlü varyans analizi testi kullanıldı. **Bulgular:** Yaş ortalaması 55,51±9,9 yıl olan hastaların %45,6'sında, venöz port kateter kullanım süresi 0-6 ay arasındaydı. FOLFIRI ve FOLFOX tedavisi alan hastalar çoğunluktaydı (%94). Hastaların neredeyse tamamı, venöz port kateter kullanımının günlük yaşam aktivitelerini olumsuz etkilemediğini belirtti. Kolorektal kanserli hastaların genel yaşam kalitesi ölçek puanlarının yüksek olduğu, ancak yaşadıkları semptomların çokluğu nedeniyle hastalığa özgü yaşam kalitesi ölçek puanlarının düşük olduğu görüldü. **Sonuç:** Venöz port kateter kullanımının, hastaların günlük yaşam aktivitelerini olumsuz etkilemediği görüldü.

Anahtar Kelimeler: Kolorektal kanser; venöz port kateter; yaşam kalitesi

In addition to chemotherapy treatment, cancer patients often require venous insertions for antibiotic therapy, parenteral nutrition, treatment of pain and chemotherapy, and blood transfusions.[1,2] Implanted port catheter systems are one of the practices that significantly facilitate vascular insertions for this reason.

Venous port catheters, which provide secure administration of vesicant and irritant drugs by reducing the risk of extravasation compared to peripheral venous access, ensure consistent access to the vascular tract and contribute to the reduction of anxiety experienced by the patient due to frequent venipuncture.[3,4] Compared to central venous catheters, it reduces the

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risk of infection due to the absence of catheter-related parts external to the body.[1,2,5] The use of venous port catheters has become a necessity in this group of patients, especially due to the treatment protocol received by patients with colorectal cancer. Even in modern chemotherapy using many active agents, 5-fluorouracil (5-FU) plays a central role in the treatment of colorectal cancer.[6] Oxaliplatin/irinotecan, 5-FU, and folinic acid drugs, which are included in the treatment protocol of colorectal cancer patients, are administered to the patient as infusion in the chemotherapy center, and then a portable infusion pump is attached to the patient and 5-FU infusion is continued for 46 to 48 hours at home.

Unlike other types of cancer, patients with colorectal cancer have to use venous port catheters at home due to ongoing chemotherapy drugs and they have to continue their daily lives.[7] Due to these long term infusion regimens, the use of venous port catheters is mandatory in colorectal cancer patients.[8] It is thought that it is important to examine the quality of life of colorectal cancer patients who continue their daily lives at home with a port catheter, unlike other types of cancer.

Colorectal cancer has a higher incidence than many other cancers, and like other cancers, it is the type of cancer that traumatizes patients. According to the Year in Health Statistics, it is the third most common cancer in both men and women.[9] According to the Global Cancer Observatory (2020) colorectal cancers account for 9.1% of all cancers in Türkiye and is the second leading cause of cancer-related deaths worldwide.[10,11] A limited number of studies on cancer patients with venous port catheters were encountered. These studies were aimed at determining the experiences of cancer patients regarding the port catheter, the use of the port in daily life and the satisfaction of cancer patients with the port, to diagnose the quality of life of cancer patients with venous port catheter and peripheral vascular access and the economic cost between peripheral catheter and venous port catheter use.[1,2,12-14] It has been observed that limited studies have been conducted examining the effect of venous port catheter use on the quality of life in patients with colorectal cancer.[15] The aim of this study was to determine the effect of venous port catheter use on quality of life in patients with colorectal cancer.

MATERIAL AND METHODS

STUDY DESIGN AND SAMPLE

This descriptive and prospective study was conducted to determine the effect of venous port catheter use on quality of life in patients with colorectal cancer. The study was carried out in a training and research hospital with an oncology clinic and outpatient chemotherapy unit on the Anatolian side of İstanbul between April-July 2022. The sample of the study consisted of colorectal cancer patients who were admitted to the oncology and chemotherapy units of the relevant hospital on the specified dates, who had venous port catheters (access to subclavian vein, chest side), who agreed to participate in the study, and who did not have a stoma because it was predicted that it might affect the quality of life measurement results. An average of 75 patients per month apply to the clinic of the relevant hospital. It was aimed to collect study data for a period of 4 months. The sample size was calculated by using Raosoft® (Sample Size Calculator; Raosoft inc.) considering 5% as the margin of error and 95% as the confidence level, with a 50% response rate; the population considered was 300 colorectal cancer patients. The sample size was 169 colorectal cancer patients.

DATA COLLECTION TOOLS

Patient identification form: The form included a total of 7 questions inquiring the identifying characteristics of the patient.

Diagnostic Form of Venous Port Catheter Use in Daily Life in Cancer Patients: The form, which was prepared by the researchers by reviewing the literature included a total of 11 questions, questioning the effect of venous port catheter on the daily life of the individual. The form content was presented to the expert opinion of nurses, physicians and faculty members working in the field of oncology.[1,13]

European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire-Cancer (EORTC-QLQ-C30): The EORTC-QLQ-C30, a cancer-specific quality of life scale, was developed by the EORTC in 1987. The scale was translated into Turkish by Cankurtaran et al. The

scale consists of three subheadings, namely general health, functional and symptom scales, and includes a total of 30 questions. High scale scores for functional and general health subscales indicate high quality of life/health, while high scores on the symptom scale indicate high levels of symptoms and problems and low quality of life.[16] In this study, the reliability coefficient of the scale was 0.74.

European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire Colorectal Cancer (EORTC-QLQ-CR29): It is a QLQ for colorectal cancer patients. It consists of 29 questions evaluating disease symptoms, treatment side effects, body image, sexual status and future expectations. The first 18 questions can be filled in by all patients diagnosed with colorectal cancer.

Each variable has a score between 0-100. An increase in the scores obtained from the dimensions of general health complaints, excretory system satisfaction, urinary system satisfaction and drug side effects indicates an excess of symptoms, that is, a decrease in quality of life. The Turkish validity and reliability study was conducted by Akduran and Durna. In this study, the reliability coefficient of the scale was detected to be 0.72. In the literature, it is recommended to combine the EORTC-QLQ-C30 with EORTC-QLQ-CR29.[17]

ETHICS OF RESEARCH

Ethical approval was obtained from Marmara University Faculty of Medicine Clinical Research Ethics Committee (date: ; no: 09.2022.163). The research adhered to the Declaration of Helsinki.

DATA ANALYSIS

Scale scores were calculated according to the EORTC manual scoring system (EORTC-QLQ-C30 Scoring Manual, 2001).[18] To determine whether the effect of venous port catheter use on the quality of life in patients with colorectal cancer varies according to the descriptive characteristics of the patients; in comparing 2 separate independent groups, independent samples t-test; one-way analysis of variance test was used to determine the difference between more than 2 independent groups and the reason for the difference.

RESULTS

The mean age was 55.51±9.9 (minimum: 22; maximum: 76) years, 66.9% were female, 56.8% were primary school graduates. 85.2% of the patients were married and 86.4% were not working. 40.2% of the patients were diagnosed with colorectal cancer 6 months or more ago. The duration of venous port catheter use was between 0-6 months in 45.6% of the patients (Table 1). Patients receiving FOLFIRI and FOLFOX treatment were the majority (n=150; 94%).

When the effect of venous port catheter use on the daily lives of patients with colorectal cancer was analyzed. 90.5% of the patients stated that it did not interfere with sports/exercise, 63.9% stated that it did not affect sleep, and 92.3% stated that it did not negatively affect appearance (Table 1).

94.1% of the patients reported that the venous port catheter did not have a negative effect on participation in social activities; 82.8% in doing their daily chores; 89.3% in their choice of clothes; 88.2% in bathing (Table 1).

The mean total scores of the patients in the general health subscale of the QLQ-C were 65.92±12.26; the mean total scores under the functional scale were 79.24±12.80 for physical function, 92.40±14.76 for role function, 76.08±17.16 for emotional function, 81.85±21.73 for cognitive function and 93.39±13.26 for social function (Table 2).

The mean total scores of the patients under the symptom scale sub-heading were 38.26±18.42 for fatigue; 24.16±22.48 for nausea and vomiting; 23.47±19.62 for pain; 13.80±19.41 for dyspnea; 24.65±24.74 for insomnia; 24.06±26.46 for loss of appetite; 36.68±28.08 for constipation; 18.93±25.64 for diarrhea and 34.71±33.30 for financial dimensions (Table 2).

In patients with colorectal cancer, the mean total scores of quality of life scale sub-dimensions were 73.63±12.97 for general health complaints, 88.70±15.19 for urinary system satisfaction, 7.95±12.25 for excretory system satisfaction, and 42.01±22.12 for drug side effects (Table 2).

TABLE 1: Descriptive characteristics of patients diagnosed with colorectal cancer (n=169)

Descriptive characteristics	n (%)
Age (years) ($\bar{X}$±SD) (minimum-maximum)	55.51±9.9 (22-76)
Gender	
Female	56 (33.1)
Male	113 (66.9)
Education level	
Primary school	96 (56.8)
Secondary school	24 (14.2)
High school	37 (21.9)
University	12 (7.1)
Marital status	
Married	144 (85.2)
Single	11 (6.5)
Divorced	14 (8.3)
Working status	
Working	23 (13.6)
Not working	146 (86.4)
Diagnosis time	
0-6 month	68 (40.2)
7-11 month	50 (29.6)
1-2 year	33 (19.5)
2 year and above	18 (10.7)
Port usage time	
0-6 month	77 (45.5)
7-11 month	48 (28.4)
1-2 year	28 (16.6)
2 year and above	16 (9.5)
Does having a port prevent you from exercising?	
Yes	16 (9.5)
No	153 (90.5)
Does having a port prevent you from sleeping?	
Yes	61 (36.1)
No	108 (63.9)
Does having a port negatively affect your appearance?	
Yes	15 (7.7)
No	156 (92.3)
Does having a port affect your participation in social activities?	
Yes	10 (5.9)
No	159 (94.1)
Does having a port affect your daily chores?	
Yes	29 (17.2)
No	140 (82.8)
Does having a port affect your outfit choice?	
Yes	18 (10.7)
No	151 (89.3)
Has having a port changed your bathing habits?	
Yes	20 (11.8)
No	149 (88.2)

SD: Standard deviation

TABLE 2: Distribution of total and sub-dimension scores of the quality of life in cancer patients and the quality of life in colorectal cancer patients (n=169)

	Number of items	Question numbers	Minimum-maximum	$\bar{X}$±SD
EORTC-QLQ-C30				
General health status	2	29, 30	16.67-83.33	65.92±12.26
Functional scales				
Physical function	5	1, 2, 3, 4, 5	40-100	79.24±12.80
Role function	2	6, 7	33.33-100	92.40±14.76
Emotional function	4	21, 22, 23, 24	16.67-100	76.08±17.16
Cognitive function	2	20, 25	16.67-100	81.85±21.73
Social function	2	26, 27	50-100	93.39±13.26
Symptom scales				
Fatigue	3	10, 12, 18	0-77.78	38.26±18.42
Nausea and vomiting	2	14, 15	0-100	24.16±22.48
Pain	2	9, 19	0-83.33	23.47±19.62
Dyspnea	1	8	0-100	13.80±19.41
Insomnia	1	11	0-100	24.65±24.74
Loss of appetite	1	13	0-100	24.06±26.46
Constipation	1	16	0-100	36.68±28.08
Diarrhea	1	17	0-100	18.93±25.64
Financial problems	1	28	0-100	34.71±33.30
EORTC-QLQ-CR29				
General health complaints	7	35, 41, 42, 43, 44, 45, 46, 47	24.96-100	73.63±12.97
Urinary system satisfaction	4	31, 32, 33, 34	50-100	88.70±15.19
Excretory system satisfaction	3	36, 38, 39	0-66.67	7.95±12.25
Drug side effects	2	37, 40	0-100	42.01±22.12

SD: Standard deviation; EORTC-QLQ-C30: European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire-Cancer; EORTC-QLQ-CR29: European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire Colorectal Cancer

When it was examined whether the effect of venous port catheter use on quality of life in patients with colorectal cancer differed according to the descriptive characteristics of the patients:

Male cancer patients had higher quality of life scale physical function scores (p=0.023) and QLQ-CR scale general health complaints scores than female patients (p=0.001) (Table 3).

Emotional function scores (p=0.000), cognitive function (p=0.001) and general health status scores (p=0.000) of the QLQ-C and general health complaints scores of the QLQ-CR scale were higher in non-working patients compared to women (p=0.007) (Table 1).

TABLE 3: Total scale scores related to descriptive characteristics of patients with colorectal cancer (n=169)

	EORTC-QLQ-C30						EORTC-QLQ-CR29
Descriptive features	Physical function	Role function	Emotional function	Cognitive function	Social function	General health status	General health complaints
Gender							
Female	76.06±12.63	88.98±16.89	72.61±15.46	78.27±23.97	92.26±12.29	65.17±13.86	69.01±12.46
Male	80.82±12.65	94.10±13.34	77.80±17.76	83.62±20.41	93.95±13.74	66.29±11.43	75.91±12.65
Test value	t= -2.300;	t= -1.978;	t= -1.861;	t= -1.513;	t= -0.779;	t= -0.557;	t= -3.353;
	p=0.023	p=0.051	p=0.064	p=0.132	p=0.437	p=0.578	**p=0.001****
Education level							
Primary school	80.27±13.32	93.40±13.78	77.16±15.44	83.85±19.71	94.61±13.35	65.10±11.86	75.01±13.90
Secondary school	75.27±12.65	92.36±17.01	78.47±17.36	73.60±26.88	91.66±15.54	62.84±12.76	74.53±8.57
High school	80.53±10.92	92.34±15.51	72.74±20.37	81.98±22.00	92.34±11.51	69.82±9.88	70.72±11.93
University	74.99±13.36	84.72±15.00	72.91±19.50	81.94±24.05	90.27±13.21	66.66±18.46	69.68±14.74
Test value	F: 1.555;	F: 1.234;	F: 0.883;	F: 1.434;	F: 0.702;	F: 1.940;	F: 1.404;
	p=0.202	p=0.299	p=0.451	p=0.235	p=0.552	p=0.125	p=0.243
Marital status							
Married	79.20±12.95	91.78±15.39	76.85±17.22	81.94±20.99	93.05±13.58	65.97±11.88	74.10±13.22
Single	84.23±9.54	96.97±10.04	74.24±18.42	92.42±20.22	92.42±15.57	68.18±16.59	72.23±10.23
Divorced	75.71±12.97	95.23±10.18	69.64±15.19	72.61±27.43	97.67±6.05	63.69±12.91	69.82±12.33
Test value	F: 1.375;	F: 0.910;	F: 1.195;	F: 2.616;	F: 0.784;	F: 0.417;	F: 0-760;
	p=0.256	p=0.405	p=0.305	p=0.076	p=0.458	p=0.660	p=0.469
Working status							
Working	78.78±10.61	92.42±11.18	59.46±19.80	80.27±22.32	91.66±12.33	64.62±12.39	66.76±14.47
Not working	79.31±13.13	92.40±15.26	78.57±15.32	92.42±13.33	93.65±13.42	74.62±6.54	74.65±12.46
Test value	t= -0.178;	t= 0.006;	**t= -5.235;**	**t= 3.587;**	t= -0.653;	**t= 5.779;**	**t= -2.711;**
	p=0.859	p=0.995	**p=0.000*****	**p=0.001**	p=0.515	**p=0.000*****	**p=0.007****

*p<0.05; **p<0.01; ***p<0.001; t: Independent sample t-test; F: One-way analysis of variance; EORTC-QLQ-C30: European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire-Cancer; EORTC-QLQ-CR29: European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire Colorectal Cancer

Patients who stated that having a port did not prevent them from exercising had higher QLQ-C general health status scores than those who reported having a port (p=0.015) (Table 4). Patients who reported that having a port did not prevent them from sleeping had lower scores on the general health complaints scale of the QLQ-CR than those who reported having a port (p=0.001) (Table 4). Patients who stated that having a port had no adverse effect on their appearance had higher scores for emotional function on the QLQ-C (p=0.000), higher scores for general health status (p=0.005), and lower scores for general health complaints (p=0.001) (Table 4). Patients who thought that having a port did not affect participation in social activities had higher QLQ-C role function (p=0.017); cognitive function (p=0.011); general health status (p=0.025) scores (Table 4). Patients who thought that having a port did not affect performing daily tasks had higher QLQ-C role function (p=0.017) and social function scores (p=0.009) (Table 4). Patients who believed that having a port did not affect their choice of clothes had higher social function scores (p=0.003) and general health status scores (p=0.021) (Table 4). Patients who reported that having a port did not affect their bathing habits had higher QLQ-C emotional function scores (p=0.025) and social function scores (p=0.011), and lower QLQ-CR general health complaint scores (p=0.004) (Table 4).

DISCUSSION

When the quality of life scores of patients with colorectal cancer were analyzed, it was observed that the mean scores on the EORTC-QLQ-C30 were high, but patients experienced more symptoms in the sub-dimensions of the EORTC-QLQ-CR29, and their quality of life decreased (Table 2).

TABLE 4: Total scale scores related to the use of the port in daily life (n=169)

	EORTC-QLQ-C30						EORTC-QLQ-CR29
Descriptive features	Physical function	Role function	Emotional function	Cognitive function	Social function	General health status	General health complaints
Does having a port prevent you from exercising?							
Yes	77.49±11.11	90.62±14.86	82.81±15.35	81.25±23.47	85.41±20.06	58.85±16.23	73.07±14.97
No	79.42±12.99	92.59±14.79	75.38±17.24	81.91±21.62	94.22±12.13	66.66±11.58	73.68±12.80
Test value	t= -0.573;	t= -0506;	t= -1.655;	t= 0.116;	t= -1.723;	t= -2.461;	t= -0.159;
	p=0.568	p=0.614	p=0.100	p=0.908	p=0.104	**p=0.015***	p=0.875
Does having a port prevent you from sleeping?							
Yes	80.75±11.35	92.89±12.71	73.08±19.56	83.33±19.95	95.08±11.11	66.53±13.39	76.07±11.45
No	78.37±13.54	92.12±15.86	77.77±15.49	81.01±22.72	92.43±14.29	65.58±11.62	69.29±14.40
Test value	t= 1.162;	t= -0.323;	t= -1.715;	t= 0.664;	t= 1.335;	t= 0.480;	t= -3.362;
	p=0.247	p=0.747	p=0.088	p=0.508	p=0.184	p=0.632	**p=0.001****
Does having a port negatively affect your appearance?							
Yes	76.41±8.43	87.17±13.86	57.05±20.36	84.61±25.87	89.74±14.49	65.17±12.32	74.53±12.65
No	79.47±13.09	92.84±14.79	77.67±15.95	81.62±21.43	93.69±13.16	75.00±6.80	62.72±12.18
Test value	t= 0.828;	t= -1.331;	t= -4.380;	t= 0.476;	t= -1.032;	t= 2.835;	t= -3.244;
	p=0.409	p=0.185	p=**0.000*****	p=0.635	p=0.303	**p=0.005****	**p=0.001****
Does having a port affect your participation in social activities?							
Yes	77.33±10.03	81.66±16.57	77.49±17.59	65.00±27.72	89.99±8.60	57.50±14.40	68.64±10.96
No	79.36±12.97	93.08±14.43	75.99±17.19	82.91±20.96	93.60±13.49	66.45±11.96	73.94±13.05
Test value	t= -0.485;	t= -2.404;	t= 0.268;	t= -2.570;	t= -0.833;	t= -2.268;	t= -1.256;
	p=0.628	**p=0.017***	p=0.789	**p=0.011***	p=0.406	**p=0.025***	p=0.211
Does having a port affect your daily chores?							
Yes	82.29±8.94	85.05±18.00	80.45±13.59	80.46±20.44	92.61±14.17	62.93±8.21	71.44±14.85
No	78.60±13.41	93.92±13.59	75.17±17.72	82.14±22.04	97.12±6.40	66.54±12.87	74.08±12.56
Test value	t= 1.415;	t= -2.509;	t= 1.513;	t= -0.378;	t= 2.669;	t= -1.451;	t= -0.995;
	p=0.159	**p=0.017***	p=0.132	p=0.706	**p=0.009****	p=0.149	p=0.321
Does having a port affect your outfit choice?							
Yes	79.25±10.19	93.51±12.95	72.68±19.76	88.88±22.86	79.62±18.57	65.45±12.70	72.33±11.77
No	79.23±13.11	92.27±15.00	76.48±16.86	81.01±21.52	95.03±11.51	69.90±6.47	73.78±13.13
Test value	t= 0.007;	t= 0.379;	t= -0.783;	t= 1.389;	t= -3.441;	t= 2.416;	t= -0.446;
	p=0.995	p=0.709	p=0.443	p=0.179	**p=0.003****	**p=0.021***	p=0.656
Has having a port changed your bathing habits?							
Yes	84.32±9.96	95.00±10.94	74.99±17.05	90.00±15.67	92.84±13.87	70.83±11.93	81.36±14.36
No	78.55±13.01	92.08±15.20	84.16±16.19	80.76±22.23	97.49±6.10	65.26±12.19	72.59±12.46
Test value	t= 1.906;	t= 0.836;	t= 2.269;	t= 1.797	t= 2.622;	t= 1.921;	t= 2.902;
	p=0.058	p=0.405	**p=0.025***	p=0.074	**p=0.011***	p=0.056	**p=0.004****

*p<0.05;**p<0.01; ***p<0.001; t: Independent sample t-test; EORTC-QLQ-C30: European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire-Cancer; EORTC-QLQ-CR29: European Organisation for Research and Treatment of Cancer, Quality of Life Questionnaire Colorectal Cancer

When the studies conducted abroad are examined; Biffi et al., reported that venous port catheter application did not negatively affect the quality of life of patients; Kreis et al., found in their study that most patients diagnosed with gynecological and breast cancer were satisfied with the port catheter system; however, one third of the patients have to use expensive huber needles because their family members do not know how to flush the port catheter.[19,20] Approximately 18% of patients stated that they were not satisfied with the port catheter system for cosmetic reasons. Johansson et al., reported that patients with a catheter experienced fewer restrictions in their daily lives than patients with a central venous catheter.[21]

Janatolmakan et al., stated positive effects such as long-term use of venous port catheters, less pain, and timely administration of medications.[4] The same study reported that patients' lack of knowledge about the port catheter insertion process triggered the patient's fear and anxiety. Patients who aren't psychologically ready and having low blood values are stated as obstacles to port insertion.

When similar studies were examined; Çakın Ünnü et al. reported that the general health status and physical function of patients with metastatic gastric and colorectal cancer remained stable after chemotherapy; quality of life scores of patients with colorectal cancer were reported to be high in the study of Qedair et al. and Al-Shandudi et al.[22-24] Differences in mean age, gender, living conditions, health insurance, length of hospitalization, and presence of comorbidities are significant factors affecting the quality of life of patients.[25] Peng et al. reported that colorectal cancer patients without a stoma had lower quality of life scores and suffered more from gastrointestinal and excretory problems.[26] Especially in patients without a stoma, it was reported that defecation problems were the most frequent excretory problem and this was due to chronic inflammation in the anastomosis and surrounding area. In another study, Sjövall et al. reported that the quality of life of patients was negatively affected due to excretory problems.[27] In this study, patients reported urinary system complaints the most (Table 2). Therefore, the low EORTC-QLQ-CR29 quality of life scores of the patients were related to the high number of problems they encountered associated with the disease.

In this study, it was observed that male cancer patients had better physical functioning, but their general health complaints scores were higher than those of females (Table 3). Laghousi et al. reported that the quality of life of female patients diagnosed with colorectal cancer was lower than that of male patients; Akduran and Durna reported that quality of life did not differ according to gender.[17,28] Trinquinato et al. reported that the total score and sub-dimension scores of quality of life differed according to gender.[29] In the same study, it was emphasized that nurses should evaluate patients holistically and focus on the factors affecting quality of life by considering gender differences, and it was pointed out that individualized care should be provided to each individual.

In this study, it was determined that patients who were not employed had better emotional functioning (p=0.000), cognitive functioning (p=0.001), and general health status (p=0.000), but their EORTC-QLQ-CR29 general health complaints scores were higher than those of employed patients (p=0.007) (Table 3). Beesley et al. (2016) reported that patients diagnosed with colorectal cancer abandoned work due to their illness and their quality of life decreased accordingly.[30] Unemployment is not an important component of quality of life, but it is an effective factor that contributes to the measurement of quality of life.[31] It has been stated that the use of occupational therapies will be beneficial especially in ensuring the adaptation of non-working patients to the disease and coping with emotional problems.[30] In this study, it was observed that the use of venous port catheter had no adverse effect on the activities of daily living of patients with colorectal cancer (Table 1). Patients who reported that having a port did not prevent them from exercising or sleeping, did not negatively affect their appearance, did not affect their participation in social activities, daily chores, and choice of clothes, and did not alter their bathing habits were reported to have a higher quality of life (Table 4). Burbridge et al. (2021) reported in their study that the port catheter did not interfere with the patients' dressing, bathing and swimming activities. In the study of Söyleyici et al., all of the patients with venous port catheters stated that they did not feel any discomfort from the presence of port catheters.[13] In many studies as well as in this study, it was observed that patients were satisfied with the venous port catheter system.

STRENGTHS AND LIMITATIONS

The strength of the study is that the study sample consists of patients with colorectal cancer. Limitations of the study that the study was conducted in a single unit, and all patients had a port catheter in the chest area. The duration of port insertion for most of the patients was between 0-6 months.

CONCLUSION

It was observed that the use of venous port catheters did not negatively affect the quality of life in colorectal cancer patients.

The use of a port catheter may affect the lives of cancer patients in different ways. While diagnosing cancer patients, oncology nurses should ask questions about how the port catheter affects their daily lives, and they should inform the patient and their family before and after the port catheter insertion and support them in this regard.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

All authors contributed equally while this study preparing.

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