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Assessment of the quality of life in patients treated for colorectal cancer

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Summary

Colorectal cancer is a common cause of death. The incidence of cancer increases every year, it is caused by better secondary prevention - screening and early stage cancer detection. The early stages of neoplasms enable the implementation of effective treatment. The method of

treating colon cancer is radical treatment - surgery. The quality of life in patients with chronic diseases such as cancer is variable in each phase of the disease.
The presented work aims to show the quality of life of patients on the day of admission to the hospital for the surgical treatment of colorectal cancer. The study used standardized QLQ-C30 forms with the extension of the CR29 module. Comprehensive assessment of the quality of life enables the presentation of the patient's condition before the procedure and is the starting point for the assessment of the patient after the procedure.
The studies show that patients have the lowest assessment of the overall quality of life and emotional functioning. They judge physical and mental functioning well. Symptoms related to the disease, such as abdominal pain, significantly reduce the quality of life.
The presented research shows that each time before the procedure, the patient should have the quality of life assessed in order to possibly further compare the changes in the subjective assessment of the quality of life. The research shows that patients diagnosed with cancer have a low quality of life assessment and preventive measures should be implemented in the form of consultations.
Key words: QLQ- C30, QLQ- CR29, surgery

1. Introduction

Neoplasms are the second cause of death among the population in Poland and in the world after cardiovascular diseases [1]. A patient with a diagnosed neoplastic disease requires detailed attention from the therapeutic team and the need to observe his problems [2].
Colorectal cancer Colorectal cancer is responsible worldwide for 8% of cancer deaths, which is the fourth most common cancer cause of death in the world, causing approximately 600,000 deaths (8%) annually [1,2].
Mortality is lower in women than in men. After the age of 50, the incidence of gastrointestinal cancer increases very quickly with each decade.
At the same time, in the most endangered age groups, diseases of the circulatory and respiratory system and other vital organs constitute a serious burden, which significantly reduces the efficiency of the system.
It is estimated that as many as 80% of people over 65 are affected by at least one cardiovascular or respiratory system disease. This clearly proves the scale of threats to which patients with malignant neoplasms are exposed [3].

Quality of life assessment

According to the WHO definition, quality of life-QOL is a subjective assessment by an individual of his or her life situation in relation to the culture in which the individual lives, his system of values, goals, expectations and interests [4].

Quality of life is significantly important in patients with chronic diseases such as cancer. This relationship depends primarily on:

- The need to change the current style and lifestyle
- The need for long-term treatment
- Problems with understanding medical terminology [5].

In chronic patients, the subjective assessment of quality of life may differ significantly from the objective assessment, which is related to the concept of chronic fatigue syndrome (CFP) [6].

A patient's health status is often assessed in clinical practice only by means of a physiological factor. The quality of life does not always translate proportionally to the physiological factor, but the degree of disease advancement in clinical terms does not translate proportionally to a reduction in the quality of life. [7.8].

QLQ-C30

The QLQ-C30 questionnaire allows you to assess the quality of life in 15 dimensions, it is dedicated to patients with diagnosed neoplastic disease. The quality of life dimension is expressed on a scale of 0-100. The first 6 of them are functional scales in which better quality of life is expressed by higher values. In symptom scales, higher numbers mean greater severity of disease symptoms, and therefore worse quality of life.

QLQ-CR29

The QLQ-CR29 questionnaire assesses the quality of life in 23 dimensions specific to the life of patients with colorectal cancer. As in the QLQ-C30 questionnaire, the quality of life is expressed on a 0-100 scale. The first 5 are functional scales where higher quality of life will equate to higher numbers. Symptom scales mean the severity of symptoms. Higher values are associated with a poorer quality of life.

2. Aim

The aim of the study was to show the subjective quality of life in patients diagnosed with colorectal cancer qualified for surgery. The study used standardized forms to assess the quality of life. The aim of the study was to verify the subjective assessment of the quality of life at the level of functioning and symptoms.

3. Material and methods

The study was conducted among patients diagnosed with colorectal cancer.

1. Criteria for inclusion in the group:

1. First-time surgical intervention in the abdominal cavity.

2. Confirmed tumor located in the large intestine.

3. Full legal capacity and no professional dependence with the teacher

4. Obtaining written consent to participate in the study

Patients with:

1. Metastatic neoplastic disease, advanced neoplastic disease pTNM IV.

2. Patients for whom a stoma is planned.

3. Prior abdominal surgery.

4. With coexisting diseases of the musculoskeletal system and injuries within the musculoskeletal system that prevent active participation in the study.

5. Lack of written consent to participate in the study and lack of legal independence.

120 patients participated in the study. Forms QLQ-C30 and QLQ-CR29 were used for the study, the study was conducted on the day the patient was admitted to the oncological surgery ward. After analyzing the forms, only the forms with data were qualified for analysis.

4. Results

Characteristics of the study group

Age [years]	śr±SD	65,47±10,61
	median	67
Sex	Women	52 (43,33%)
	Men	68 (56,66%)

Tab.1 Characteristics of the group

The age distribution in the group confirms the morbidity data after the fifth decade of life of the patients. The average age of the examined person was 67 years.
52 women, constituting 43.33% of the respondents and 68 men, constituting 56.66% of the respondents participated in the study. A total of 120 people participated in the study, but the data collected from the forms contained incomplete answers and was removed for statistical analysis.

The study group corresponds statistically with the characteristics of the group of patients with colorectal cancer.

Quality of life results before surgery.

The quality of life assessment has been divided into scales in individual questionnaires

QLQ-C30 - functional scales

The survey participants functioned best mentally and physically, and the weakest in the general and emotional sphere.

QLQ-C30 - functional scales	N	Missing data	Mean	SD	Median	Min	Max	Q1	Q3
Overall quality of life	118	2	28,11	9,85	33,33	8,33	66,67	16,67	33,33
Functions. physical	118	2	47,16	19,27	46,67	6,67	100	40	60
Function. every day activities	117	3	42,45	22,05	33,33	0	100	33,33	66,67
Function emotional	114	6	14,84	19,92	4,17	0	91,67	0	25
Function mental	114	6	50,58	30,32	50	0	100	33,33	83,33
Function social	114	6	29,39	27,81	33,33	0	100	0	50

Tab. 2. Data on quality of life in terms of functional scales in patients with colorectal cancer.

The presented data show that patients diagnosed with colorectal cancer who expect surgery have a low assessment of the overall quality of life, however, they assess physical functioning and functioning in everyday activities quite well. They rate emotional functioning the lowest, and mental functions are rated the highest.

QLQ-C30 - symptom scales

The participants of the questionnaire felt insomnia, fatigue and pain the most.

QLQ-C30 - symptom scales	N	Missing data	Mean	SD	Median	Min	Max	Q1	Q3
Tiredness	118	2	87,85	12,24	88,89	55,56	100	77,78	100
Nausea and vomiting	118	2	50,42	18,8	50	16,67	100	33,33	66,67
Pain	118	2	82,63	19,54	83,33	33,33	100	66,67	100
Dyspnea	118	2	37,57	35,01	33,33	0	100	0	66,67
Insomnia	118	2	89,55	16,13	100	33,33	100	66,67	100
Loss of appetite	118	2	70,62	30,25	66,67	0	100	33,33	100
Constipation	118	2	79,38	25,01	100	0	100	66,67	100
Diarrhea	118	2	67,51	27,72	66,67	0	100	66,67	100
Financial problems	114	6	39,18	24,79	33,33	0	100	33,33	66,67

Tab. 3. Data on quality of life in terms of symptom scales in patients with colorectal cancer.

The presented data show that patients experience fatigue, insomnia and pain the most. The least perceived symptoms in patients awaiting surgery were nausea and vomiting, and dyspnoea. Most of the patients did not give an answer regarding financial problems.

QLQ-CR29 - functional scales

The survey participants functioned best in the area of body image and body weight, and the weakest in the area of male sexual functioning and functions. sexual women.

QLQ-CR29 - functional scales	N	Missing data	Mean	SD	Median	Min	Max	Q1	Q3
Body image	118	2	38,61	34,4	33,33	0	100	0	66,67
Anxiety	118	2	3,95	10,82	0	0	33,33	0	0
Body weight	118	2	37,85	32,59	33,33	0	100	0	66,67
Function sexual (M)	68	52	1,47	6,9	0	0	33,33	0	0
Function sexual (K)	50	70	3,33	12,14	0	0	66,67	0	0

Tab. 4. Data on quality of life in terms of functional scales in patients with colorectal cancer.

QLQ-CR29 - Symptom Scales

The participants of the survey experienced the most severe erection problems (men), abdominal pain, embarrassment due to frequent bowel movements, pain in the buttocks, perineum, anus, and blood and mucus in the stool.

QLQ-CR29 - Symptom Scales	N	Missing data	Mean	SD	Median	Min	Max	Q1	Q3

QLQ-CR29 - Symptom Scales	N	Missing data	Mean	SD	Median	Min	Max	Q1	Q3
Frequent urination	119	1	25,07	18,4	33,33	0	66,67	16,67	33,33
Blood and mucus in the stool	119	1	86,41	16,52	100	16,67	100	66,67	100
Frequent bowel movements	116	4	64,66	23,89	66,67	16,67	100	50	83,33
Urinary incontinence	119	1	13,45	20,04	0	0	66,67	0	33,33
Pain when urinating	119	1	9,52	18,48	0	0	100	0	0
Stomach pain	119	1	91,6	16,93	100	33,33	100	100	100
Pain in buttocks, perineum, anus	119	1	87,11	20,86	100	0	100	66,67	100
A feeling of bloating in the abdomen	119	1	83,72	18,71	100	0	100	66,67	100
Dry mouth	119	1	44,26	31,92	33,33	0	100	33,33	66,67
Hair loss	119	1	7,56	21,01	0	0	100	0	0
Taste problems	119	1	32,21	26,73	33,33	0	100	0	33,33
Wind	116	4	83,62	18,91	100	33,33	100	66,67	100
Difficulty maintaining a stool	116	4	39,37	31,58	33,33	0	100	0	66,67
Rectal irritation	116	4	77,59	25,92	83,33	0	100	66,67	100
Embarrassment of passing stools frequently	116	4	87,93	19,36	100	33,33	100	66,67	100
Erection problems (M)	68	52	98,53	6,9	100	66,67	100	100	100
Discomfort during intercourse (K)	50	70	54,67	48,92	100	0	100	0	100

Tab. 5. Data on quality of life in terms of symptom scales in patients with colorectal cancer

The collected results show that in patients with colorectal cancer, the quality of life is not assessed highly. This condition is associated with the disease process and the occurrence of related symptoms. Most patients experienced abdominal pain, and in the case of men, erection problems, which is a significant problem of the quality of life.

5. Discussion

The quality of life is an important factor determining the mental state of a patient.

In a study conducted on 768 patients, Nayak et al. Prove that 82.3% of patients subjected to the quality of life assessment assess their well-being very low [9]. Similar results are presented in the group of examined patients. Studies conducted on a group of 120 people diagnosed with colorectal cancer confirm the conclusions available in the literature regarding the low assessment of the quality of life with neoplastic diseases [10-12].

The available studies mention the problem of insomnia and fatigue in patients treated for cancer [13]. Cancer patients are particularly prone to sleep disorders, and the incidence of insomnia in cancer patients ranges from 19% to 63%, which is approximately 3 times more than in the general population [14].

The obtained results show a low assessment of the quality of life, especially in the sphere of emotional and sexual functioning and in terms of the occurrence of symptoms related to insomnia, fatigue, pain, erectile dysfunction - in the case of men, abdominal pain and embarrassment due to frequent bowel movements, in patients diagnosed with cancer the colon on the day of admission to the pin for surgical treatment.

In the studies by Yun and co-authors, attention is drawn to the need to implement psychological programs and their beneficial influence on the course of cancer treatment [15]. The introduction of telephone counseling may significantly influence the assessment of the quality of life of patients with colorectal cancer [16].

6. Conclusion

1. The quality of life of patients diagnosed with colorectal cancer assessed on the day of admission to the ward for the purpose of surgical treatment is low
2. The lowest rated aspect is general quality of life
3. Patients function best in the sphere of mental functioning, the weakest in the sphere of emotional functioning.
4. Disease-related symptoms significantly affect the assessment of the quality of life.

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