ORIGINAL ARTICLE

Preoperative health-related quality of life in patients undergoing elective surgery for colorectal cancer

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Summary

Introduction: Health-related quality of life (HRQoL) is an important multidimensional, patient-centered concept in colorectal cancer (CRC). However, data on preoperative HRQoL in Southeast European surgical populations remain limited. This study aimed to describe preoperative HRQoL in patients undergoing elective surgery for CRC, compare HRQoL between colon and rectal cancer, and identify sociodemographic and clinical factors associated with preoperative HRQoL.

Material and Methods: Preoperative HRQoL was assessed using the Functional Assessment of Cancer Therapy–Colorectal (FACT-C) and the Cleveland Clinic Colorectal Cancer Quality of Life questionnaire (CCF-CaQL). Sociodemographic and clinical data were collected using a structured questionnaire and medical records. Group comparisons were performed by tumor localization, and factors associated with the FACT-C total score were evaluated using univariable and multivariable linear regression.

Results: The mean CCF-CaQL total score was 92.3±20.4, and the mean FACT-C total score was 98.8±18.2. No significant differences in HRQoL were observed between patients with colon or rectal cancer across any questionnaire domains (all $p > 0.05$). In multivariable analysis, higher ASA physical status was independently associated with a lower FACT-C total score (B = -5.05; 95% CI = -9.70 to -0.40; $p = 0.033$).

Conclusion: Preoperative HRQoL in patients undergoing elective CRC surgery was moderate and did not differ significantly by tumor localization. Higher ASA physical status was independently associated with poorer preoperative HRQoL.

Keywords: colorectal cancer, quality of life, FACT-C, CCF-CaQL, preoperative assessment

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INTRODUCTION

Colorectal cancer (CRC) remains one of the most common malignancies worldwide and a leading cause of cancer-related mortality, with a growing global burden. Recent global estimates report approximately 1.9 million new CRC cases and around 900,000 deaths annually (1,2). Alongside improvements in oncologic outcomes, attention has increasingly shifted toward patient-centered endpoints, particularly health-related quality of life (HRQoL), which captures the physical, emotional, and social consequences of cancer and its management that are not fully reflected by traditional clinical outcomes (3).

In CRC, HRQoL is influenced by preoperative symptoms, treatment-related effects, and patient vulnerability related to comorbidities and functional status. Importantly, baseline (preoperative) HRQoL provides a clinically meaningful reference point for postoperative trajectories and has been associated with short-term surgical outcomes and recovery in CRC populations (4,5). Preoperative HRQoL assessment may therefore support risk stratification and shared decision-making, especially when considering differences in treatment pathways and symptom profiles between colon and rectal cancer, including the more frequent use of neoadjuvant therapy in rectal cancer and its potential impact on patients' perceived well-being (6).

Reliable measurement of HRQoL requires validated instruments. The Functional Assessment of Cancer Therapy (FACT) system provides a widely used framework for assessing cancer-specific HRQoL, beginning with the FACT-General (FACT-G) core questionnaire and extending to disease-specific modules (7). The Functional Assessment of Cancer Therapy–Colorectal (FACT-C) combines the FACT-G domains with a colorectal cancer–specific subscale and has demonstrated good reliability, validity, and clinical discrimination in CRC patients (8, 9). While FACT-C is comprehensive and well established, routine clinical use may be limited by respondent burden, motivating the development of shorter CRC-focused tools designed for surgical populations. In this context, the Cleveland Clinic Colorectal Cancer Quality of Life questionnaire (CCF-CaQL) was developed as a concise instrument capturing physical, emotional, and social dimensions relevant to CRC surgery and has been validated in multicenter settings (10, 11).

Despite the clinical relevance of preoperative HRQoL, data from Southeast European surgical cohorts remain limited, and the extent to which baseline HRQoL differs by tumor localization or is associated with routinely collected clinical variables remains poorly characterized. Therefore, the aim of the present study was to describe preoperative HRQoL in patients undergoing elective surgery using the FACT-C and CCF-CaQL instruments, to compare HRQoL between colon and rectal cancer, and to evaluate sociodemographic and clinical factors associated with preoperative HRQoL.

MATERIAL AND METHODS

Study design

This study was conducted within a prospective cohort of patients diagnosed with colorectal adenocarcinoma and scheduled for elective surgical treatment at the Clinic for Digestive Surgery, University Clinical Center of Serbia, between June 1, 2022, and April 1, 2023.

Eligible participants were adults aged 18 years or older with histologically confirmed stage I–III colorectal adenocarcinoma according to the American Joint Committee on Cancer (AJCC) TNM classification. Patients with colon or rectal cancer who were candidates for colectomy or rectal resection (high or low anterior resection) were included. All participants provided written informed consent before enrollment. This study was conducted in accordance with the Declaration of Helsinki and was approved by the Ethics Committee of the University Clinical Center of Serbia (approval number 808/5/2022).

Patients younger than 18 years, those with metastatic disease, recurrent tumors, inflammatory bowel disease, hereditary colorectal cancer syndromes, or those unable to complete questionnaires due to communication barriers were excluded from this analysis.

Data collection

Sociodemographic and clinical data were collected preoperatively using a structured study questionnaire and medical record review. The following variables were recorded: age, sex, body mass index (BMI), education level, marital status, employment status, smoking status, alcohol consumption, Charlson Comorbidity Index (CCI), American Society of Anesthesiologists (ASA) physical status classification, tumor localization, administration of neoadjuvant radiotherapy and chemotherapy, and presence of a stoma.

The Charlson Comorbidity Index was calculated based on documented comorbid conditions and categorized as mild (1–2), moderate (3–4), or severe (≥5) (12). ASA classification was recorded according to standard criteria (13).

Quality of life assessment

Preoperative quality of life was assessed at admission to the hospital using two validated instruments: the Cleveland Clinic Colorectal Cancer Quality of Life questionnaire (CCF-CaQL) (10) and the Functional Assessment of Cancer Therapy–Colorectal (FACT-C) (8).

The CCF-CaQL consists of 24 items generating four domain scores (physical health, physical activity, emotional well-being, and social functioning). The physical element score is derived from the sum of physical health and physical activity measures, while the mental element

score is calculated from emotional and social domains. The total score is obtained by summing the physical and mental elements, with higher scores indicating better quality of life (10).

The FACT-C questionnaire comprises 36 items divided into five domains: Physical Well-Being, Social/Family Well-Being, Emotional Well-Being, Functional Well-Being, and the Colorectal Cancer Subscale. In addition to individual domain scores, the Trial Outcome Index (TOI) and the FACT-G and FACT-C total scores were calculated according to standard scoring procedures. Higher scores represent a better quality of life (8).

Questionnaire completion rates were recorded. Baseline characteristics of patients who completed each questionnaire and those who did not were compared to assess potential response bias.

Statistical analysis

Continuous variables were reported as means ± standard deviations, and categorical variables were reported as frequencies and percentages. Normality of distribution was assessed using the Kolmogorov–Smirnov test. Comparisons between groups (e.g., colon versus rectal cancer; responders versus non-responders) were performed using the independent-samples t-test or Mann-Whitney U test, depending on the normality of distribution for continuous variables, and the chi-square test or Fisher's exact test for categorical variables, as appropriate. Associations between sociodemographic and clinical characteristics and preoperative quality of life, as measured by the FACT-C total score, were examined using linear regression. Univariable linear regression models were first constructed to evaluate crude associations. Variables considered clinically relevant or demonstrating a p-value <0.10 in univariable analysis were included in a multivariable linear regression model to identify independent predictors of preoperative quality of life. Regression coefficients (B) with 95% confidence intervals were reported. Statistical significance was defined as a two-sided p-value <0.05. All analyses were performed using SPSS version 26.0 (SPSS Inc., Chicago, IL, USA).

RESULTS

A total of 300 patients with colorectal cancer were included in the study. The mean age was 65.0, and 56.3% were male **(Table 1)**. The mean body mass index was 25.8 ± 4.7 kg/m^2. Most patients had completed high school education (62.0%), while 26.3% had a university degree and 1.3% had a PhD. The majority of participants were married (75.3%), and most were retired (63.3%), whereas 30.0% were employed. Regarding lifestyle factors, 41.0% were nonsmokers, 35.7% were former smokers, and 23.3% were current smokers. Approximately half of the patients did not consume alcohol (49.7%), while the remainder reported varying levels of alcohol consumption; 10% stated that they consume alcohol daily. About a quarter of patients are current smokers. Most patients had a substantial comorbidity burden, with 48.7% classified as having severe comorbidity (Charlson ≥5) and 43.7% moderate comorbidity (CCI 3–4). According to the ASA classification, nearly half of the patients were ASA III (47.0%), and 2.0% were ASA IV. Rectal cancer was more common than colon cancer, affecting 63.0% of patients, while 34.7% had colon cancer and 2.3% had synchronous tumors. Neoadjuvant radiotherapy and chemotherapy were administered in 23.0% and 23.7% of patients, respectively. A stoma was present in 11.3% of patients.

A total of 259 patients (86.3%) completed the Cleveland Clinic Colorectal Cancer Quality of Life Questionnaire, while 41 patients (13.7%) did not **(Table 2)**. There were no significant differences between responders and non-responders in age, sex, Charlson comorbidity index, ASA score, tumor localization, or stoma presence. However, patients who completed the questionnaire were significantly more likely to have received neoadjuvant radiotherapy (25.1% vs 9.8%, p = 0.030) and neoadjuvant chemotherapy (25.9% vs 9.8%, p = 0.024) compared with those who did not complete the questionnaire.

A total of 268 patients (89.3%) completed the FACT-C questionnaire, while 32 patients (10.7%) did not (Table 3). No significant differences were observed between responders and non-responders in age, sex, Charlson comorbidity index, ASA score, tumor localization, or stoma presence. Similarly to the Cleveland Clinic questionnaire, patients who completed the FACT-C were significantly more likely to have received neoadjuvant radiotherapy (25.0% vs 6.3%, p = 0.017) and neoadjuvant chemotherapy (25.4% vs 9.4%, p = 0.044).

Preoperative quality-of-life scores, assessed using the Cleveland Clinic Colorectal Cancer Quality of Life questionnaire and the FACT-C, are presented in **Table 4**. No statistically significant differences were observed between patients with colon and rectal cancer across any quality-of-life domains. The mean CCF-CaQL total score was 92.3 ± 20.4, while the mean FACT-C total score was 98.8 ± 18.2. Patients with colon cancer showed slightly higher scores in most domains; however, these differences did not reach statistical significance (all p > 0.05).

Univariate and multivariable linear regression analyses of factors associated with preoperative FACT-C total score are presented in **Table 5**. In univariate analysis, alcohol consumption and higher ASA score were significantly associated with quality of life. Higher ASA score was associated with lower FACT-C total score, while alcohol consumption was associated with higher scores. In multivariable analysis, ASA score remained the only independent predictor of preoperative quality of life. Patients with higher ASA class had significantly lower

Table 1. Sociodemographic and clinical characteristics of the study population

	n (%)
Total	300 (100%)
Age (mean±SD)	65.0±10.5 (median 67 years)
Gender	
Male	169 (56.3)
Female	131 (43.7)
BMI (mean±SD)	25.8±4.7
Education	
Elementary school	31 (10.3)
High school	186 (62.0)
Faculty	79 (26.3)
PhD	4 (1.3)
Marital status	
Married	226 (75.3)
Divorced	21 (7.0)
Unmarried	17 (5.7)
Widowed	36 (12.0)
Employment	
Unemployed	20 (6.7)
Employed	90 (30.0)
Pension	190 (63.3)
Smoking status	
Nonsmoker	123 (41.0)
Previous smoker	107 (35.7)
Current smoker	70 (23.3)
Alcohol consumption	
No	149 (49.7)
Rarely	30 (10.0)
A few times a month	48 (16.0)
At least once a week	43 (14.3)
Daily	30 (10.0)
Charlson comorbidity index	
Mild (CCI scores of 1-2)	23 (7.7)
Moderate (CCI scores of 3-4)	131 (43.7)
Severe (CCI scores ≥5)	146 (48.7)
ASA score	
I	11 (3.7)
II	142 (47.3)
III	141 (47.0)
IV	6 (2.0)
Tumor localization	
Colon	104 (34.7)
Rectum	189 (63.0)
Both	7 (2.3)
Neoadjuvant radiotherapy	69 (23.0)
Neoadjuvant chemotherapy	71 (23.7)
Stoma	
No	266 (88.7)
Yes	34 (11.3)

SD – standard deviation; BMI – Body Mass Index; ASA – American Society of Anesthesiologists

Table 2. Comparison of patients who completed and did not complete the Cleveland Clinic Colorectal Cancer Quality of Life Questionnaire

	Not completed n (%)	Completed n (%)	p value
Total	41 (13.7)	259 (86.3)	
Age (mean±SD)	67.5±8.9	64.6±10.7	0.103
Gender			
Male	23 (56.1)	146 (56.4)	0.974
Female	18 (43.9)	113 (43.6)	
Charlson comorbidity index			
Mild (CCI scores of 1-2)	1 (2.4)	22 (8.5)	0.372
Moderate (CCI scores of 3-4)	20 (48.8)	111 (42.9)	
Severe (CCI scores ≥5)	20 (48.8)	126 (48.6)	
ASA score			
I	2 (4.9)	9 (3.5)	0.943
II	18 (43.9)	124 (47.9)	
III	20 (48.8)	121 (46.7)	
IV	1 (2.4)	5 (1.9)	
Tumor localization			
Colon	17 (41.5)	87 (33.6)	0.608
Rectum	23 (56.1)	166 (64.1)	
Both	1 (2.4)	6 (2.3)	
Neoadjuvant radiotherapy	4 (9.8)	65 (25.1)	0.030
Neoadjuvant chemotherapy	4 (9.8)	67 (25.9)	0.024
Stoma			
No	37 (90.2)	229 (88.4)	0.732
Yes	4 (9.8)	30 (11.6)	

SD – standard deviation; ASA – American Society of Anesthesiologists

Table 3. Comparison of patients who completed and did not complete the FACT-C Quality of Life Questionnaire

	Not completed n (%)	Completed n (%)	p value
Total	32 (10.7)	268 (89.3)	
Age (mean±SD)	66.8±11.5	64.8±10.3	0.312
Gender			
Male	16 (50.0)	153 (57.1)	0.445
Female	16 (50.0)	115 (42.9)	
Charlson comorbidity index			
Mild (CCI scores of 1-2)	2 (6.3)	21 (7.8)	0.741
Moderate (CCI scores of 3-4)	16 (50.0)	115 (42.9)	
Severe (CCI scores ≥5)	14 (43.8)	132 (49.3)	
ASA score			
I	2 (6.3)	9 (3.4)	0.573
II	13 (40.6)	129 (48.1)	
III	17 (53.1)	124 (46.3)	
IV	0 (0.0)	6 (2.2)	
Tumor localization			
Colon	9 (28.1)	95 (35.4)	0.242
Rectum	21 (65.6)	168 (62.7)	
Both	2 (6.3)	5 (1.9)	
Neoadjuvant radiotherapy	2 (6.3)	67 (25.0)	0.017
Neoadjuvant chemotherapy	3 (9.4)	68 (25.4)	0.044
Stoma			
No	31 (96.9)	235 (87.7)	0.121
Yes	1 (3.1)	33 (12.3)	

SD – standard deviation; ASA – American Society of Anesthesiologists

Table 4. Preoperative quality of life scores according to tumor localization (colon vs rectum)

CCF-CaQL questionnaire	Total (Mean ± SD)	Colon (Mean ± SD)	Rectum (Mean ± SD)	*p* value
Physical health measure	27.2±6.2	28.3±5.4	26.8±6.5	0.065
Physical activity measure	20.4±5.7	20.8±5.3	20.3±5.8	0.475
Emotional measure	32.4±8.5	33.4±8.0	32.1±8.7	0.247
Social measure	12.2±5.1	12.9±5.0	11.9±5.2	0.172
Physical element	47.6±10.1	49.1±8.8	47.1±10.7	0.125
Mental element	44.7±12.0	46.3±11.2	44.0±12.4	0.163
Total score	92.3±20.4	95.4±18.4	91.1±21.4	0.116
FACT-C questionnaire				
PWB	21.5±5.4	21.3±5.3	21.7±5.4	0.590
SWB	21.2±4.9	21.0±5.1	21.4±4.8	0.448
EWB	17.9±4.5	18.1±4.7	17.9±4.5	0.727
FWB	17.8±5.6	17.6±5.3	18.0±5.7	0.601
CCS	20.3±4.6	20.1±4.3	20.5±4.8	0.574
FACT-C TOI	59.6±12.9	59.1±12.1	60.2±13.3	0.513
FACT-G total score	78.5±15.4	78.0±15.5	79.0±15.4	0.607
FACT-C total score	98.8±18.2	98.1±17.9	99.5±18.4	0.563

PWB – Physical Well-Being; SWB - Social/Family Well-Being; EWB – Emotional Well-Being; FWB – Functional Well-Being; CCS – Colorectal Cancer Subscale; FACT-C – Functional Assessment of Cancer Therapy — Colorectal; FACT-G – Functional Assessment of Cancer Therapy — General; TOI – trial outcome index.

Table 5. Univariate and multivariable linear regression analysis of factors associated with preoperative FACT-C total score

	Univariate B (95% CI)	*p*	Adjusted B (95% CI)	*p*
Age (years)	-0.19 (-0.04-0.02)	0.077	–2.98 (–8.17-2.20)	0.778
Female sex (vs male)	–4.37 (–8.75-0.01)	0.051	–2.98 (–8.17-2.20)	0.258
BMI	0.30 (–0.17-0.76)	0.214		
Education	1.22 (–2.30-4.75)	0.495		
Marital status	–0.47 (–2.57-1.64)	0.663		
Employed (vs not employed)	4.72 (–0.02-9.47)	0.051	1.64 (–4.82-8.09)	0.618
Smoking status	–0.09 (–2.89-2.71)	0.948		
Alcohol consumption	**5.04 (0.71-9.38)**	0.023	–0.07 (–6.30-6.15)	0.282
Charlson comorbidity index	–2.92 (–6.39-0.54)	0.098	–0.07 (–6.30-6.15)	0.981
ASA	**–6.15 (–10.47- –1.83)**	0.005	**–5.05 (–9.70- –0.40)**	**0.033**
Neoadjuvant radiotherapy	2.13 (–3.07-7.33)	0.420		
Neoadjuvant chemotherapy	1.96 (–3.18-7.11)	0.454		
Rectal vs colon cancer	1.36 (–3.26-5.97)	0.563		
Stoma	–2.73 (–9.62-4.17)	0.437		

BMI – Body mass index; ASA – American Society of Anesthesiologists

FACT-C total scores (B = –5.05, 95% CI –9.70 to –0.40, p = 0.033). No independent associations were observed for age, sex, employment status, alcohol consumption, or Charlson comorbidity index after adjustment.

DISCUSSION

The present study evaluated preoperative health-related quality of life in patients with colorectal cancer undergoing elective surgery using two validated instruments, the FACT-C and the CCF-CaQL. Three principal findings emerged. First, preoperative HRQoL in this cohort was overall moderate, indicating that many patients retained a relatively preserved level of perceived well-being before surgical treatment. Second, no statistically significant differences were observed between patients with colon and rectal cancer across HRQoL domains. Third, higher ASA physical status was independently associated with poorer preoperative HRQoL, highlighting the role of general health status in shaping patient-reported outcomes.

Preoperative HRQoL has increasingly been recog-

nized as an important patient-centered outcome in colorectal cancer because it reflects the combined impact of tumor-related symptoms, comorbidities, and psychological burden prior to treatment. Earlier research demonstrated that baseline HRQoL may be associated with postoperative complications and recovery following colorectal surgery (4). More recent studies have confirmed that poorer preoperative quality-of-life scores are associated with adverse postoperative outcomes, including longer hospital stay and increased complication rates (14). These findings support integrating HRQoL assessment into routine preoperative evaluation as a complementary measure to traditional clinical indicators.

In the present study, the mean FACT-C total score was 98.8, which is broadly comparable to values reported in other cohorts of patients with colorectal cancer assessed before treatment (15). Although direct comparisons across studies should be interpreted cautiously due to differences in patient populations and measurement timing, these findings suggest that many patients maintain a moderate level of HRQoL before surgery despite the physical and psychological burden of cancer diagnosis.

Interestingly, no significant differences in HRQoL were observed between patients with colon and rectal cancer. While rectal cancer is often associated with more complex treatment pathways, including neoadjuvant therapy and potential concerns related to bowel function, pelvic symptoms, and stoma formation, several studies have shown that differences in HRQoL between colon and rectal cancer become more apparent after surgical treatment rather than before it (6,16). A recent prospective study evaluating HRQoL trajectories in rectal cancer demonstrated that postoperative functional outcomes, particularly bowel dysfunction and treatment-related symptoms, substantially influence quality of life during follow-up (16). Similarly, other recent investigations have shown that HRQoL may decline after surgery and gradually recover over time, highlighting the dynamic nature of patient-reported outcomes in colorectal cancer care (17). Therefore, the absence of significant differences in HRQoL before surgery observed in the present study may reflect the absence of treatment-related functional consequences.

The present analysis identified ASA physical status as the only independent predictor of preoperative HRQoL. Patients with higher ASA class reported significantly lower FACT-C scores, indicating poorer perceived well-being. This finding is consistent with previous research demonstrating that physical condition and comorbidity burden are important determinants of HRQoL in oncology populations (18). The ASA classification reflects overall systemic health and perioperative risk and may therefore capture aspects of physical vulnerability that directly influence patients' quality of life. Recent studies have also emphasized the importance of preoperative patient fitness and functional reserve in determining postoperative outcomes and quality-of-life trajectories in colorectal cancer surgery (19). These findings support the notion that preoperative patient-reported outcomes can help identify vulnerable patients who may benefit from targeted prehabilitation strategies to improve physical resilience before surgery.

Although the Charlson Comorbidity Index showed an association with HRQoL in univariate analysis, it did not remain significant after adjustment for other variables. One possible explanation is that the ASA classification better reflects the overall functional status and physiological reserve of surgical patients than comorbidity indices based primarily on diagnostic categories. From a clinical perspective, this distinction may be important, as ASA classification may provide a more direct reflection of patients' perceived health status at the time of surgery.

Alcohol consumption was associated with higher HRQoL scores in univariate analysis but did not remain significant in the multivariable model. Similar observations have occasionally been reported in epidemiological studies where moderate alcohol consumption was associated with higher perceived well-being; however, this relationship is complex and may reflect underlying lifestyle or socioeconomic factors rather than a direct effect of alcohol consumption itself (20). Therefore, this finding should be interpreted with caution.

An important methodological aspect of this study is the use of two complementary HRQoL instruments. The FACT-C questionnaire is a widely used and well-validated measure specifically designed to assess quality of life in patients with colorectal cancer [8,9]. It combines general cancer-related domains with a colorectal-specific subscale, allowing comprehensive assessment of physical, emotional, social, and functional well-being. In contrast, the EORTC QLQ-CR29 questionnaire, which is frequently used alongside the EORTC QLQ-C30, focuses more strongly on colorectal cancer–specific symptoms and functions, including bowel symptoms, urinary function, body image, and sexual functioning. Comparative analyses have suggested that FACT-C provides a broader evaluation of overall HRQoL.

In contrast, the EORTC QLQ-CR29 may be more sensitive in detecting symptom-specific treatment effects, particularly in rectal cancer populations (21). Thus, these instruments should be viewed as complementary rather than competing tools. In the present study, the use of FACT-C, together with the concise CCF-CaQL, enabled a comprehensive assessment of baseline HRQoL while minimizing respondent burden.

Another strength of this study is the high questionnaire completion rate, exceeding 85% for both instruments. This indicates that HRQoL assessment using these questionnaires is feasible in routine clinical practice among patients undergoing colorectal surgery. Additionally, the absence of major differences between responders and non-responders for most clinical characteristics suggests that response bias was likely limited.

This study contributes to the limited body of evidence on HRQoL among colorectal cancer patients in Southeast Europe. Most research in this area has been conducted in Western Europe, North America, or Asia, while regional data remain scarce. Differences in healthcare systems, cultural perceptions of illness, and access to supportive care services may influence patient-reported outcomes. Therefore, regional studies such as the present one are important for improving the understanding of HRQoL in diverse healthcare settings.

Several limitations should be acknowledged. First, the study was conducted at a single tertiary center, which may limit the generalizability of the findings. However, it should be noted that this clinical center treats patients from all over Serbia, so the data can, at least partially, reflect the condition of patients from our entire population. Second, although the cohort was prospectively assembled, the present analysis focused only on preoperative HRQoL and therefore cannot evaluate changes in quality of life after surgery. Longitudinal studies are needed to understand HRQoL trajectories throughout treatment and survivorship better. Third, psychosocial factors such as anxiety, depression, and social support were not assessed and may also influence perceived quality of life.

The findings of this study have several practical implications for colorectal cancer care. Routine assessment of HRQoL before surgery may provide valuable information about patients' functional status and perceived well-being that is not captured by traditional clinical measures alone. Integrating patient-reported outcomes into preoperative assessment could help identify individuals at higher risk of poor postoperative recovery and guide personalized supportive interventions. Furthermore, the association between ASA physical status and HRQoL suggests that patients with poorer general health may benefit from prehabilitation programs that improve physical capacity and resilience before surgery. Establishing baseline HRQoL values is also essential for interpreting postoperative outcomes and evaluating the effectiveness of surgical and oncologic treatments over time.

CONCLUSION

Preoperative HRQoL in patients undergoing elective colorectal cancer surgery was generally moderate and did not differ significantly between colon and rectal cancer. Higher ASA physical status was independently associated with poorer preoperative HRQoL, emphasizing the importance of overall patient health in shaping perceived well-being before treatment. These findings support the routine incorporation of HRQoL assessment into preoperative colorectal cancer care and provide a useful baseline for future longitudinal studies evaluating postoperative quality-of-life trajectories.

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PREOPERATIVNI KVALITET ŽIVOTA KOD PACIJENATA KOJI SE PODVRGAVAJU ELEKTIVNOJ OPERACIJI ZBOG KOLOREKTALNOG KARCINOMA

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Sažetak

Uvod: Kvalitet života povezan sa zdravljem (health-related quality of life, HRQoL) predstavlja važan višedimenzionalni koncept usmeren ka pacijentu kod kolorektalnog karcinoma (KRK). Međutim, podaci o preoperativnom HRQoL u hirurškim kohortama iz jugoistočne Evrope su ograničeni. Cilj rada bio je da se opiše preoperativni HRQoL kod pacijenata sa KRK koji se podvrgavaju elektivnom hirurškom lečenju, uporedi HRQoL između karcinoma kolona i rektuma i ispitaju sociodemografski i klinički faktori povezani sa preoperativnim HRQoL.

Metode: Preoperativni HRQoL procenjen je pomoću upitnika Functional Assessment of Cancer Therapy-Colorectal (FACT-C) i Cleveland Clinic Colorectal Cancer Quality of Life Questionnaire (CCF-CaQL). Sociodemografski i klinički podaci prikupljeni su strukturisanim upitnikom i uvidom u medicinsku dokumentaciju. Poređenja su vršena prema lokalizaciji tumora, a faktori povezani sa ukupnim FACT-C skorom analizirani su univarijantnom i multivarijantnom linearnom regresijom.

Rezultati: Srednja vrednost ukupnog CCF-CaQL skora iznosila je 92,3±20,4, a ukupnog FACT-C skora 98,8±18,2. Nisu utvrđene statistički značajne razlike u HRQoL između pacijenata sa karcinomom kolona i rektuma ni u jednoj domeni oba upitnika (sve p>0,05). U multivarijantnoj analizi, viši ASA skor bio je nezavisno povezan sa nižim ukupnim FACT-C skorom (B=-5,05; 95% CI -9,70 do -0,40; p=0,033).

Zaključak: Preoperativni HRQoL kod pacijenata koji se podvrgavaju elektivnoj operaciji zbog KRK bio je umeren i nije se značajno razlikovao prema lokalizaciji tumora. Viši ASA skor bio je nezavisno povezan sa lošijim preoperativnim HRQoL.

Ključne reči: kolorektalni karcinom, kvalitet života, FACT-C, CCF-CaQL, preoperativna procena

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