The effects of early rehabilitation in patients with surgically treated colorectal cancer

Ljubomir Djurašić¹, Aleksandar Pavlović², Nemanja Zarić³, Ivana Palibrk¹, Dragan Basarić⁴, Vladimir R. Djordjević³
¹Klinika za fizikalnu medicinu i rehabilitaciju, Klinički centar Srbije, Beograd, Srbija
²Klinika za rehabilitaciju "Dr Miroslav Zotović", Beograd, Srbija
³Klinika za digestivnu hirurgiju, Klinički centar Srbije, Beograd, Srbija

INTRODUCTION

Colorectal cancer is one of the most common cancers. Caught early, it is often curable. The important role in functional recovery of these patients, have enhanced recovery after surgery (ERAS) clinical care protocol and early rehabilitation. The goal of this research is the objective evaluation of the effects of early rehabilitation in patients after surgical treatment of colorectal cancer, respecting their functional recovery and quality of life, before and after rehabilitation. This study was made as experimental, randomized, controlled clinical trial, opened type. The examination included 58 patients (39 males and 19 females), age from 36 to 85 years, average 63.3, with surgically treated colorectal cancer. All patients had appropriate early multimodal accelerated rehabilitation program. The mean value of this program was 7.24 days. As observing parameter was used short form, 36 items health related questionnaire (SF-36), with two summary measures-Physical component summary (PCS) and Mental component summary (MCS), for the evaluation of quality of life, before and after treatment. For the statistical analysis of the acquired data, before and after therapy, was used Student’s t-test. After therapy, the quality of life of patients was significantly improved, physical health (p<0.01), as well as mental health (p<0.01). SF36 score after rehabilitation, show important improvement of quality of life in early treated patients. These results show excellent therapeutic possibilities of enhanced recovery clinical care protocol and early rehabilitation procedures. According to the results of this study, it can be concluded that early rehabilitation accelerated program is very effective in treatment of patients with surgically treated colorectal cancer.

Key words: colorectal cancer; early rehabilitation; life quality

OBJECTIVE

The goal of this research is the objective evaluation of the effects of early rehabilitation of patients after surgical treatment of colorectal cancer, respecting their functional recovery and quality of life, before and after rehabilitation.

MATERIAL AND METHODS

This study was made as experimental, randomized, controlled clinical trial, opened type, in the period from 01.09.2011 to 31.12.2011.

Patients

The study included 58 patients (39 males and 19 females), age from 36 to 85 years, average 63.3, with surgically treated colorectal cancer.
Treatment

All patients had appropriate early multimodal accelerated rehabilitation program: breathing exercises, coughing and expectoration exercises, exercises for peripheral circulation, improvement of range of motion and muscle strength of arms and legs, as well as the inhalations, early mobilization, step by step setting in vertical position, transfers training and walking. The mean value of this program was 7.24 days.

Observing parameter

Short form was used as observing parameter, 36 items health related questionnaire (SF-36), with two summary measures - Physical component summary (PCS) and Mental component summary (MCS)10, for the evaluation of quality of life, before and after treatment.

Statistical analysis

For the comparative evaluation between groups, according to the basic bioantropometric characteristics (age and gender) of the patients, Student’s t-test and chi-square ($\chi^2$) test were implemented, for age distribution, as well as chi squared analysis of contingency tables, for gender distribution. Student’s t-test was used for the statistical analysis of the acquired data and the evaluation of statistical importance of observing parameter middle values differences, before and after rehabilitation.

RESULTS

SF-36 PCS an MCS scores middle values before rehabilitation are shown in Table 1.

After therapy, the quality of life of patients was significantly improved, physical health (p< 0.01), as well as mental health (p<0.01) (Table 2). These results show excellent effects of early rehabilitation in patients with surgically treated colorectal cancer.

DISCUSSION

SF-36 score after rehabilitation, show important improvement of quality of life in early treated patients. These results show excellent therapeutic possibilities of enhanced recovery clinical care protocol and early rehabilitation procedures and are in accordance with the results of the other authors’ researches (Basse L.7,8, Gilchrist LS.9, Sprangers MAG.11, SienYNg.12, Tay SS13 and McEwen SE.14).

This study, as the unique examination, proves significant difference of quality of life of patients, before and after early rehabilitation program.

CONCLUSION

After early rehabilitation treatment, the quality of life of patients was very improved.

### Table 1

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<tr>
<th>SF-36 PCS AND MCS SCORE MIDDLE VALUES BEFORE REHABILITATION</th>
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<td>SF 36</td>
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### Table 2

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<tr>
<th>SF 36 PCS AND MCS SCORE MIDDLE VALUES AFTER REHABILITATION AND STATISTICAL IMPORTANCE</th>
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According to the results of this study, it can be concluded that early rehabilitation accelerated program is very effective in treatment of patients with surgically treated colorectal cancer.

SUMMARY

Kolorektalni karcinom predstavlja jedan od karcinoma koji se najčešće javljaju, naročito kod osoba posle navršene pedesete godine života. Cilj ovog istraživanja je utvrđivanje efekata rane rehabilitacije kod pacijenata sa operativno tretiranim kolorektalnim karcinomom.


Kao parametar, osećanje postmatranja za procenu kvaliteta života pacijenata pre i posle tretmana, upotrebilje je upitnik SF-36. Za statističku obradu dobijenih podataka korisćen je Studentov t-test.

Nakon rehabilitacije, kvalitet života pacijenata je značajno poboljšan, odnosno poboljšano je njihovo fizičko zdravlje (p<0,01), kao i mentalno (p<0,01).

Na osnovu rezultata ovog istraživanja, može se zaključiti da je primena ranog ubrzanog rehabilitacionog programa, veoma efikasna u tretmanu pacijenata sa operativno tretiranim kolorektalnim karcinomom.

Ključne reči: kolorektalni karcinom; rana rehabilitacija; kvalitet života

REFERENCE


