

**A Meta-Analysis of Quality of Life, Estimated by Questionnaires of the European Organization for Research and Treatment of Cancer (EORTC) after Rectal Cancer Surgery**

S. Maslyankov<sup>1</sup>, D. Penchev<sup>2</sup>, G. Todorov<sup>1</sup>, N. Vladov<sup>3</sup>

<sup>1</sup>II Surgery Clinic, University Hospital "Alexandrovska"

<sup>2</sup>Medical University Sofia – Faculty of medicine

<sup>3</sup>Military Academy of Sofia, Bulgaria

**Abstract**

*Background:* Rectal carcinoma is one of the most common cancers on a global scale. Although there were major improvements in its treatment during the last two decades, surgery is still the only curative method. However, is often complicated and can cause disorder of different aspects of the patients' self-perception of health. The aim of this study is performing of a meta-analysis for evaluation and comparison of the quality-of-life results after rectal cancer treatment.

*Methods:* Search of relevant articles, which were published between 2000 and 2015, was performed. The outcomes of abdominoperineal resection and anterior resection were analyzed with the EORTC's quality of life measuring instruments - quality-of-life questionnaire C30 (QLQ-C30) and quality-of-life questionnaire CR38 (QLQ-CR38). The assessment score, appropriate for the survey, was established at least one year after radical surgery. The Statistical Package for Social Sciences (SPSS) package of IBM Statistics, version 19 was used for the statistical analyses.

*Results:* 13 studies, published between 2001 and 2015, have been presented in this meta-analysis. Data from 1805 patients, with a mean age of 64.7 years, have been included. When comparing Miles extirpation and sphincter-sparing operations, statistical significance was detected for the following variables: social functioning ( $74.6 \pm 8.5$  vs.  $83.4 \pm 8.6$ ,  $P = 0.045$ ), constipation ( $11 \pm 8.4$  vs.  $22.6 \pm 8.3$ ,  $P = 0.032$ ), and body image ( $67.9 \pm 14$  vs.  $82.5 \pm 9.1$ ,  $P = 0.01$ ).

*Conclusion:* Preservation of the sphincter is a better treatment option that should be carefully considered. Dependently registered differences, our conviction for the rectal cancer care concern needs individualization of the approach in this surgery. It is essential that the policy of avoidance of abdominoperineal resection (APR) cannot currently be justified on the grounds of quality-of-life (QoL) results alone.

**Key words:** rectal cancer, quality of life, EORTC, QLQ-C30, QLQ-CR38, rectum

Corresponding author: Svilen Maslyankov, MD  
II Surgical Department  
University Hospital "Alexandrovska"  
Sofia 1431, Bulgaria " Sv. Georgi Sofiiski", no. 1  
E-mail: drm@mail.bg