The effectiveness of ERAS in emergency surgery in patients with high surgical risk

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Background. There is a limited number of studies on the introduction of enhanced recovery after surgery (ERAS) concept in emergency surgery.

Aim: to study the grade of implementation of the ERAS in emergency surgery for patients with obstructive colon cancer.

Methods. Since 2016, the randomized trial participation of 107 patients. The study included only patients with decompensated colonic obstruction.

The ERAS group (n=54, middle age 71.2±1.6) and control group (n=53, middle age 67.2±2.1) were comparable by sex, age, ASA, CR-POSSUM, co-morbidity index Charlson, tumor location and type of surgery. All the patients performed right hemicolectomy or left obstructive resections (of Hartmann`s procedure type).

Components of the ERAS was addition decompression of the colon and small (under indications) intestine, the small intestine lavage, embryology oriented surgery and D3-lymphadenectomy, rectus sheath (n=36) or wound infusion (n=18) catheterization.

Compared the occurrence of postoperative complications and mortality depending of the co-morbidity index Charlson.

Results. In ERAS group was recorded 18 complications (18.5%): by Clavien-Dindo classification I-IIIa grade – 3 patients (5.6%), IIIb-IV – 7 patients (13%). Mortality 13% (n = 7).

In the control group 31 complications were registered (34%): I-IIIa grade – 6 patients (11.3%), IIIb-IV – 12 patients (22.6%) 3%). In 3 patients (5.7%) generalization of the infectious process (sepsis) was registered. 11 patients died (20.8%).

A sample of patients who developed IIIb-IV grade complications and died after surgery showed that in each of these cases the comorbidity index was higher than the average for both groups, i.e. more than 8 points.

Discussion. The possibility of implementation of the ERAS in emergency surgery for obstructive colon cancer largely depends on the severity of the patient's concomitant pathology. The use of ERAS-programs in high-risk patients does not provide a significant improvement in the immediate results of surgical treatment, requires further study among a larger number of patients and probably requires an individual approach in each specific case.