

The degree of ischemia measured by the original technique (patent of Ukraine for utility model №25701), which allows the non-invasive determination of hemoglobin oxygenation of arterial blood.

Results: Evaluation of the morphological changes of the bowel wall were carried out by histochemical (Schiff reaction, alkaline phosphatase and nonspecific esterase mucosa of the small intestine) and histological (hematoxylin-eosin staining) study.

Conclusion: Informative study of the proposed method showed that the proposed original method of assessment of bowel viability provides rapid quantitative assessment of the degree of oxygenation of the intestinal wall, which is closely correlated with its viability. The method is convenient and easy to use, enabling its wide application in practical surgery. The proposed method of bowel viability involves highly probable, noninvasive assessment of the degree of oxygenation of the intestinal wall, which allows preventing of life-threatening complications in surgical interventions on digestive tract.

Key words: bowel wall, viability, oxygenation.

COGNITIVE STATUS OF YOUNG ADULT PATIENT AFTER ABDOMINAL SURGERY: PRE vs POSTOPERATIVE ASSESSMENT

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Introduction: Postoperative Cognitive Dysfunction (POCD) is a decline of cognitive function that occurs during the first days or few weeks after the surgery. POCD was mainly studied in elderly patients after major surgery (cardiac and vascular surgery, joint replacement). The prevalence varies from 24% to 79%. There are only few studies concerning POCD in young adult patients. Also, there are no diagnostic criteria for POCD. Goals and objectives: Comparative assessment of pre- and postoperative cognitive performance in young adult patients after intermediate risk abdominal surgery. The ability to memorize the numbers, working with numerical series, coding number-symbol, color stroop effect was particularly appreciated.

Materials and Methods: It is a prospective study, being approved by the Ethic Committee. Written informed consent, to participate in the study, was obtained from 17 young adult patients (≥ 18 years). Patients were admitted to National Scientific and Practical Centre of Emergency Medicine to be subject to abdominal surgery. All patients were assessed pre- and postoperatively using 5 tests:

1. Mini Mental Status (MMS); 2. Digit Span Test (DST); 3. Digit Connection Test (DCT); 4. Digit Symbol Substitution Test (DSST); 5. Reedley Color Stroop Test (RCST).

Results: The following results were obtained.

MMS: 28,0 (95CI 26,72–29,28) vs. 28,19 (95CI 26,95–29,42), $p=0,92$.

DST: 8,75 (95CI 8,15–9,35) vs. 9,13 (95CI 8,23–10,0), $p=0,27$.

DCT: 35,03 (95CI 28,26–41,80) vs. 30,12 (95CI 24,80–35,43), $p=0,0564$.

DSST: 37,50 (95CI 32,04–42,96) vs. 39,38 (95CI 33,52–45,23), $p=0,18$.

RCST: 19,77 (95CI 17,77–21,76) vs. 19,43 (95CI 16,19–22,67), $p=0,77$.

Conclusion: Cognitive status of young adult patients after abdominal surgery is not affected by anesthesia or surgery on the 4th – 7th day. Some particular aspects of cognitive function (working with numerical series, symbol decoding) seem to be affected by anesthesia or surgery (borderline statistical significance).

Key words: cognitive dysfunction, postoperative, young adults, assessment.