

# **DYNAMIC ELECTRONEUROSTIMULATION APPLICATION FOR SURGICAL AND COLOPROCTOLOGIC PATIENTS DURING THE POSTOPERATIVE PERIOD**

Dynamic electroneurostimulation (DENS) has been used since 2002 in Regional clinical hospital of Lipetsk.

Fields of DENS method application in colorectal surgery are the following:

- 1) faster postoperative wounds healing in patients that were operated on acute anal abscess and chronic proctitis, epithelial coccygeal tract, rectal cancer;
- 2) cutting off postoperative enteroparesis in patients that were operated on the occasion of common forms of peritonitis;
- 3) reduction of pain syndrome and painful phenomena of postoperative period in patients that underwent traditional (opened) interventions concerning colorectal cancer, complicated diverticular disease of colon;
- 4) intensification and fastening of rehabilitation effect that was achieved as a result of laparoscopic operations in patients with colorectal cancer.

Groups of patient, 5-8 persons, which received DENS-therapy in a complex of postoperative treatment were formed according to each stated direction. There were 26 patients observed altogether, where 18 patients were women and 8 patients were men in the age range from 29 to 82 years old.

DENAS or DiaDENS-DT apparatuses were used for DENS application with the help of integrated and trailing electrodes. An action started on the 1-2 day of the postoperative period and ended on 3-4 day. Trocar punctures zones and parapenetrating areas, periumbilical areas crosswise, adrenal glands zones, paravertebral zones, microcorrespondence zones on hands, feet and auricle were processed in "Test" and "Therapy" mode at comfortable intensity level. Zone selection occurred individually, duration of daily sessions was 20 to 35 minutes.

Pain syndrome of average intensity level significantly reduced after first one-two sessions for all the patients, and was completely eliminated in patients with local coloproctologic pathology; later analgesic prescription, even nonnarcotic analgetics, was not required. Prescription of nonnarcotic analgetics in the 1-4 days after the surgery was required for all patients that did not receive DENS.

Enteroparesis phenomena in coloproctologic patients disappeared after DENS application after laparoscopic operations in average 1.5 days faster than in patients that did not receive apparatus therapy. All the patients that received DENS ambulated and walked in the department on the first-second day of postoperative period. For comparison, patients after standard operations are out of bed on the 4-6 day, walk with assistance on 7-9 day.

Also we registered absence of penetrating wounds complications in patients that underwent DENS course along with more rapid pain relief, paresis elimination, earlier motor activity recovery.

Thus, on the basis of accomplished clinical observations it was revealed that postoperative period of patients with common forms of peritonitis alleviates, rehabilitation potential of laparoscopic operations in colorectal surgery strengthens significantly after the DENS inclusion in complex treatment.