УДК 616

Quziyev Ozodbek Abdusalomovich
Andijan State Medical Institute,
Department of Anesthesiology and Intensive Care, Pediatric Anesthesiology and Intensive Care

CHARACTERISTIC OF POSTOPERATIVE PAIN IN PATIENTS WITH ACUTE SEVERE PANCREATITIS IN OPEN AND MINIMALLY INVASIVE

Abstract: *This article discusses the characteristic after surgical pain in patients with severe acute pancreatitis with open and minimally invasive interventions.*
Keywords: *pain, postoperative pain, treatment, complicated cases, discomfort*

ХАРАКТЕРИСТИКА ПОСЛЕОПЕРАЦИОННОЙ БОЛИ У БОЛЬНЫХ ОСТРЫМ ТЯЖЕЛЫМ ПАНКРЕАТИТОМ ПРИ ОТКРЫТЫХ И МАЛОИНВАЗИВНЫХ ВМЕШАТЕЛЬСТВАХ

Аннотация: *В данной статье обсуждается характеристика после операционной боли у больных острым тяжелым панкреатитом при открытых и минимально инвазивных вмешательствах*

Ключевые слова: *боль, послеоперационная боль, лечение, осложненные случаи, дискомфорт*

After surgery, pain is a comprehensive response to tissue trauma during surgery. Severe postoperative pain increases the likelihood of postoperative complications and lengthens the recovery and subsequent rehabilitation of the patient. Relieving postoperative pain is one of the inalienable rights of the patient. The intensity of postoperative pain is due not only to the volume of damage and subsequent aseptic or purulent inflammation of the tissues in the area of the surgical wound, but also to the threshold for excitation of pain neurons in the central nervous system, as well as a number of psychological factors.

The pain associated with direct tissue damage during surgery is localized in the wound area and passes as the area of necrosis is delimited and granulation tissue forms. In addition, traumatic damage to the nerve endings leads to excessive pathological impulses, as a result of which the nerve cells of the posterior horns of the spinal cord are overexcited and a phenomenon called

central sensitization or secondary hyperalgesia occurs. As a result, even non-painful stimuli can be perceived as painful or unpleasant for several days after the operation. At the same time, the zone of secondary hyperalgesia is located not only around the damage zone, but also at a distance from it. This process takes 12-18 hours, which, in a significant percentage of cases, causes an increase in the intensity of postoperative pain by 2 days after surgery. Pain in humans is inseparable from the activity of the cerebral cortex, therefore, the perception of pain is always subjective and depends on the psychological characteristics of the person, as well as the associated state of stress and anxiety. The patient's perception of pain and level of satisfaction with treatment depends not only on the intensity of the pain, but also largely on the belief that they are being provided with adequate medical care in sufficient quantities.

The introduction of minimally invasive treatment methods significantly reduced tissue trauma and pain intensity both during the operation and after it, however, it can still be quite intense. So pain after laparoscopic operations has a rather specific localization and is characterized as “post-laparoscopic pain syndrome”. Pain occurs at the sites of trocar injection, as well as due to intra-abdominal trauma and rapid expansion of the peritoneum with traumatic traction of blood vessels and nerves, irritation of the phrenic nerve and the release of inflammatory mediators. Acute severe pancreatitis is a frequent surgical disease, accompanied by high mortality and the incidence of patient disability. A promising direction of treatment for purulent-necrotic complications of acute severe pancreatitis is minimally invasive interventions in the scope of debridement laparoscopy, bursomentoscopy and retroperitoneoscopy, which lead to a significant increase in the number of favorable outcomes and a decrease in the number of postoperative complications. However, the characteristics of the pain syndrome with this type of surgery are not covered much in the literature. The aim of this study was to study the intensity of postoperative pain and pain during manipulations in patients with acute severe

pancreatitis, depending on the type of surgical treatment. Materials and methods. In a study conducted on the basis of the Institution "Department Hospital at Art. Zlatoust ”JSC“ Russian Railways ”included 83 patients with acute severe pancreatitis complicated by pancreatic necrosis and / or retro peritoneonecrosis, who underwent surgery to drain the purulent focus in the retroperitoneal tissue and stuffing bag. Surgical treatment in this category of patients was carried out in two versions: a) in the amount of traditional open laparotomy and lobotomy with programmed debridement, drainage of the abdominal cavity, omental bursa and retroperitoneal spaces (comparison group, 42 patients), b) with minimally invasive interventions - laparoscopy, omentobursoscopy and retroperitoneos copy using our proposed multi-purpose fenestrated drainage and multi-channel retroperitoneoscope (study group, 41 patients).

All patients collected data on the timing and duration of prescribing analgesics to patients, as well as the number of manipulations performed under general anesthesia. To assess the degree of pain in the manipulations, we used a visual analogue scale (VAS). Patients who were conscious on the 10th, 14th, 21st and 28th days after the operation were asked to note the degree of subjective severity of pain during manipulations with a point on a graduated scale, where 0 points corresponded to the complete absence of pain, and 10 points would characterize the pain as unbearable. Statistical processing of the obtained data was carried out using the Mann – Whitney criterion and the χ^2 criterion

Results: A feature of the minimally invasive treatment performed is a significant reduction in the size of the skin wound, which is the main source of pain impulse. Also, during stage-by-stage sanitation of the abdominal cavity and retroperitoneal space, the instruments are inserted into the wound through pre-installed sleeves in the abdominal cavity, or a specially designed multifunctional drainage with a shape memory implant made of titanium nickelide proposed by us, as a result of which there is no direct contact of the instrument with the

wound walls and the pain associated with the development of central sensitization is significantly reduced. Postoperative manipulations in patients with severe acute pancreatitis complicated by pancreatic necrosis and retro-pancreatic necrosis. A - grimace of pain on the face of a patient K., 33 years old, during lumbotomy wound dressing, retroperitoneal phlegmon is treated in the traditional open way (comparison group), B - view of the lumbotomy wound, C - Photo of a patient, 39 years old, who undergoes dynamic reorganization bursomentoscopy with ultrasound by cavitation in an antiseptic solution, the patient speaks with a doctor at ease, without anesthesia and the administration of painkillers (study group), D - Video-retroperitoneoscopy through multifunctional drainageWritten consent of patients to publish photos receivedWhen analyzing the need for analgesics and general anesthesia, it was found that the total number of manipulations under anesthesia in the comparison group was 6.31 ± 0.67, while in the research group 3.78 ± 0.37 anesthesia was performed per patient (p = 0.003), which is almost two times lower than with traditional surgical treatment.

The proportion of patients receiving analgesics at different times after surgery is shown in Figure 2. As can be seen from the diagram, the need for analgesics in the study and comparison groups did not differ on days 1 and 3 after the operation, however, significant differences were already observed between 7 days of the postoperative period the study and comparison group for this indicator - the proportion of patients receiving analgesics was 58.5% ± 7.8% in the study group and 92.9% ± 4.0% in the comparison group. P <0.001. Significantly decreased (47.2 ± 8.32%). Among the patients who survived the monthly threshold, 57.2 ± 7.7% of patients continued to receive analgesics in the comparison group, and only 9.8 ± 4 in the study group 7% (significant differences, p <0.0001)As can be seen from the data in the figure, the average pain score on the VAS scale in the comparison group is 7.67 ± 0.38 points, which characterizes the pain as severe and very strong. In the study group, the

average pain score for these periods is 4.83 ± 0.34, which characterizes the pain as tolerable (differences are significant, p <0.01). By 28 days after surgery, the pain syndrome in the study group decreases to 1.92 ± 0.28, which corresponds to weak pain, while in the comparison group the level of pain during dressings is 4.82 ± 0.38 points on a scale VAS (significant differences, p <0.001).Thus, the use of minimally invasive treatments with a decrease in soft tissue and skin injuries leads to a significant reduction in the number of repeated anesthesia and the need for prescribing analgesics in the postoperative period. Repeated manipulations through the large-diameter drainage tube that we offer exclude contact between the instruments and the wound walls and lead to significantly less pain during subsequent dressings and necrectomy as compared to dressings with traditional surgical treatment.

Findings:1. The use of minimally invasive technologies in the treatment of acute severe pancreatitis complicated by pancreatic necrosis and retroperitoneonecrosis can halve the need for general anesthesia during manipulations, as well as reduce the need for analgesics in the postoperative period.

2. The intensity of the pain syndrome according to the VAS scale for trans-drainage necrectomies is significantly lower than with traditional treatment and corresponds to weak and tolerable, while pain during necrectomy through a lumbotomy wound is characterized as strong and very strong.

Literature:

Бухвалов А.Г., Грекова Н.М., Лебедева Ю.В. ХАРАКТЕРИСТИКА ПОСЛЕОПЕРАЦИОННОЙ БОЛИ У БОЛЬНЫХ ОСТРЫМ ТЯЖЕЛЫМ ПАНКРЕАТИТОМ ПРИ ОТКРЫТЫХ И МАЛОИНВАЗИВНЫХ ВМЕШАТЕЛЬСТВАХ // Современные проблемы науки и образования. – 2015. – № 4.;