# OPTIMIZATION OF SPINAL ANESTHESIA IN COMBINATION WITH INTRAVENOUS INFUSION OF DEXMEDETOMIDINE IN PATIENTS WITH PROCTOLOGICAL OPERATIONS

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# ANATATION

This article discusses reliable anesthesia in the postoperative period - one of the most important links in the treatment of proctological patients, the severity of surgical stress, methods of regional anesthesia, the hypnosis component, artificial ventilation of the lungs, the main function of accompanying surgical anesthesia, almost all common anesthetics and opioids negatively affect cognitive and psychomotor functions, "heavy" arsenal and dexmedetomidine.

**Keywords:** surgical stress, complications, hypnotic component, anesthetics and opioids, anesthesia, hypnosis component, dexmedetomidine

# URGENCY

A reliable anesthesia surgery and the postoperative period in diseases of the distal part of prmyaoy bowel and surrounding tissues, is extremely rich chuvstitelnymi nerve endings one of the most important parts of the treatment Proctologic patients Lyuboe surgery is accompanied by changes of neuroendocrine, metabolic and inflammatory disorders, which together constitute the surgical stress response. Changes also occur in the hemostasis / fibrinolysis system., moreover, complications directly or indirectly associated with them, such as myocardial infarction, stroke, pulmonary embolism, account for up to half of the causes of postoperative mortality. The severity of the surgical stress response depends, first of all, on the trauma of the surgical intervention; open abdominal surgery is highly traumatic. It is during these operations that limiting the surgical stress response becomes the most important goal of anesthesia and postoperative intensive care. One of the most rational and pathophysiologically justified approaches to solving this problem is to improve the adequacy of anesthesia and postoperative pain relief. The most distinct Stresa c limiting effect have regional anesthesia techniques, primarily neuraxial blockade local anestetikamiS this purpose, most commonly used epidural anesthesia, it is it has certain disadvantages, technically complicated, especially in geriatric patients, accompanied by the development of complications (hypotension, damage dura mater, spinal cord, spinal block, etc.). The main task of the anesthetic accompaniment of the operation is adequate anesthesia [2]. Hypnotic component, artificial veins, tilyatsiya lungs, etc., are important, but they are secondary to the analgesia, and are directly dependent on it, if inadequate pain relief is greatly increased doses of, for example, w n notikov, muscle relaxants. Moreover, the use of such an anesthesiologist's arsenal significantly lengthens the postoperative recovery time and, accordingly, increases the cost of the anesthetic aid, and also carries potential risks for the patient. Virtually all general anesthetics and opioids have adverse effects on cognitive and psychomotor functions [6]. Since opioids - the basic component of any general anesthesia, then serious problems can voznik- pull the in the case of opioid tolerance and giperal - gezii [7]. Accordingly, if you can do without the use of the above "heavy" arsenal, then the positive is obvious and fits perfectly into the concept of FTS. Spinal anesthesia (SA) is experiencing Ocher d - Noah surge in popularity in the XXI century grace - pn its advantages for the patient and the doctor [3]: the ideal analgesia and muscle relaxation are superior to the deepest narcosis, cheapness and simplicity You are a space filled, there is no need to medikamen - toznom dream and mechanical ventilation, you are a binding intestinal shortening a positive effect on the visualization when working in the abdomen, reduced blood loss, stimulated peristal - teak, reduced risk of infection and immunodepre with - these. Comparing with CA epidural anesthesia has advantages for first intraoperatsio n - Nogo analgesia due to the greater intensity (density) of the unit [4]. The quality of perioperative analgesia is significantly improved when the CA develops a long "analgesic tail". Dexmedetomidine, perhaps, can be safely called the newest drug used for sedation in the practice of anesthesiology and resuscitation. And although chronologically it was first registered in the USA under the brand name Precedex ® ("HospiraInc", USA) back in 1999, in Europe and Russia the process of approving the clinical use of the drug was delayed until 2011 and 2012,respectively. Therefore, until recently, domestic specialists did not actually have the opportunity to assess the capabilities of this drug and use its advantages in real clinical practice.

## PURPOSE OF WORK

To improve the methods of spinal anesthesia in combination with intravenous infusion of dexmedetomidine in patients with proctological operations.

## **RESEARCH OBJECTIVES**

- 1. To determine the frequency of concomitant cardiovascular disease, the nature and the possible clinical manifestations of cardiovascular complications in patients with coloproctological abnormalities in the intro as well and postoperatively.
- 2. To study and evaluate the results of monitoring hemodynamic parameters after spinal anesthesia with standard doses of a hyperbaric solution of bupivacaine .
- 3. To study and evaluate the results of monitoring hemodynamic parameters after spinal anesthesia in combination with intravenous infusion of dexmedetomidine in patients with proctological operations.

#### MATERIALS AND RESEARCH METHODS

The work will examine 120 patients admitted to the SamMI-1 clinic in a planned manner for surgery for chronic hemorrhoids, anal fissure and rectal fistula. All patients will be matched with existing concomitant cardiovascular pathology (IHD, GB). The age of the patients is from 40 to 60 years. All patients will be divided into three groups (control A and B, main group).

The control group will be carried out with standard-dose spinal anesthesia hyperbaric bupivacaine without applying preinfusion .

The basic groupiscarried saddle anesthesia lowdoses doses hyperbaric bupivacaine with preinf usion crystal oids and synthetic colloids (HES) preoperatively.

In the main group, saddle anesthesia with low doses of hyperbaric bupivacaine will be performed using a special patient position for targeted distribution of the hyperbaric bupivacaine solution.

All subjects will undergo a comprehensive study of the cardiovascular system, the state of central and peripheral hemodynamics at the stages of the operation.

The adequacy of the anesthesia performed will be assessed using the Bramage scale and pain rating scale.

Features of hemodynamic shifts will be studied according to the monitoring of heart rate, systolic, diastolic and mean dynamic blood pressure, as well as ECG.

#### EXPECTED RESULTS

The work will reveal the frequency of hemodynamic complications during coloproctological operations in patients with concomitant cardiovascular diseases.

Peculiarities of changes in hemodynamic parameters after spinal anesthesia with standard doses of hyperbaric bupivacaine solution will be revealed .

Peculiarities of changes in hemodynamic parameters after spinal anesthesia with low doses of hyperbaric bupivacaine solution using special positions after anesthetic injection will be revealed .

A method of spinal anesthesia with low doses of hyperbaric bupivacaine for the prevention of intraoperative hemodynamic disorders will be proposed .

Algorithms and protocols of anesthetic aid for patients with cardiovascular pathologies during coloproctological operations will be proposed .

## PROPOSED CONCLUSIONS

With pinal anesthesia with standard doses of hyperbaric pubivacaine, unambiguously, it is accompanied by a decrease in blood pressure. Conducting preinfusion solutions isotonic crystalloid not prevent the development of hypotension when standard doses hyperbaric bupivacaine (12-14 mg) for spinal anesthesia in coloproctological operations. The technique of spinal saddle anesthesia with low doses of hyperbaric bupivacaine (6-8 mg) is effective, safe and provides hemodynamic stability at the stages of coloproctological operations.

#### BIBLIOGRAPHY

- 1. Mazitova M.I. Fasttrack surgery is a multimodal strategy for the management of surgical patients / M.I. M a zitova , E.R. Mustafin // Kazan. honey. magazine. 2012. T. 93, No. 95. S. 799-802.
- 2. Anesthesiology and intensive therapy / P id ed. I.P. Slap . K .: NikaPrint , 2012 .-- T. 1. 550 p.
- 3. Suslov V.V. Spinal anesthesia and analgesia: A guide for doctors / V.V. Suslov, U.A. Fesenko, V.S. Fese n ko. Kh .: SIM, 2013 .-- 544 p .
- 4. Lyuboshevsky P.A. Influence of regional anesthesia on metabolic and inflammatory changes during abdominal operations / P.A. Lyuboshevsky , A.V. Zabusov // General Reanimatology. 2011.
  T. VII, No. 2. S. 31-34.
- Kawamoto S. Comparison of intrathecal morphine and buprenorphine for postoperative analgesia in cesarean delivery / S. Kawamoto, K. Tatsumi, T. Kataoka, T. Kamikawa, T. Yanagida, R. Mandai // Masui. - 2011. - Vol. 60, No. 8. - P. 892-896. 6. Usenko L.V. Postoperative cognitive disorders as a complication of general anesthesia. The importance of early pharmacological neuroprotection / L.V. Usenko,
- 6. Volkov P.A., Churadze B.T., Sevalkin S.A., Volkova Yu.N., Guryanov V.A. Dexmedetomidine as a component of anesthesia and ologicheskogo component of general anesthesia during laparosko scopic operations. Anesthesiology and Reanimatology. 2015; 60 (1): 4-7.
- 7. Epshtein S.L., Azarova T.M., Storozhev V.Yu., Vdovin V.V., Sablin I.A., Romanov B.V., Martynov A.N. General anesthesia without opioids in surgery for morbid obesity. Why and how? Regional anesthesia and acute pain management. 2016; 10 (1): 47-54.
- 8. Balandin V.V., Gorobets E.S. Opioid-free anesthesia, analgesia and sedation in head and neck tumor surgery. Anesthesiology and Reanimatology, 2015; 60 (6): 39–42.
- 9. Balandin V.V., Gorobets E.S. Opioid-free anesthesia / analgesia and sedation in a cancer patient with a history of long-term drug addiction. Regional anesthesia and acute pain management. 2014; 8 (2): 54-7.
- 10. Lubnin A.Yu., Kulikov A.S., Kobyakov G.L., Gavrilov A.G. Craniotomy awake . Anesthesiology and Reanimatology. 2012; 57 (4): 28-37
- 11. Dexdor : Instructions for use. OrionPharma ; 2012.
- 12. Morgan D.E., Mikhail M.S. Clinical anesthesiology: Per. from English ed. A.A. Bunyatyan . M :. Acad - in the "Bean "; 2005.
- 13. Abdelmalak B., Makary L., Hoban J., etal. Dexmedetomidine as sole sedative for awake intubation in management of the critical airway. J. Clin. Anesth. 2007; 19: 370-373.
- 14. Angst MS, Ramaswamy B., Davies MF et al. Comparative analgesic and mental effects of increasing plasma concentrations of dexmedetomidine and alfentanil in humans. Anesthesiology 2004; 101: 744-752.
- al. Peri -15. Chrysostomou C., Sanchez-de-Toledo J., Wearden P.  $\mathbf{et}$ operative use of dexmedetomidine is associated with decreased incidence of ventricular and supraventricular tachyarrhythmias after congenital cardiac operations. Ann. Thorac . Surg. 2011; 92: 964-972.
- 16. Chu KS, Wang F. Y., Hsu HT et al. The effectiveness of dexme detomidine infusion for sedating oral cancer patients undergoing awake fi breoptic nasal intubation. Eur. J. Anesthesiol . 2010; 27: 36-40.
- 17. Cortinez LI, Hsu YW, Sum-Ping ST et al. Dexmedetomidinephar macodynamics : Part II: Crossover comparison of the analgesic effect of dexmedetomidine and remifentanil in healthy volunteers. Anes - thesiology 2004; 101: 1077-1083.

- 18. Ebert T., Maze M. Dexmedetomidine : another arrow for the clini cian 's quiver. Anesthesiology 2004; 101: 568-570.
- 19. Ebert TJ, Hall JE, Barney JA, et al. The effects of increasing plasma concentrations of dexmedetomidinein humans. Anesth esiol ogy 2000; 93: 382-394. 19. Eisenach JC, DuPen S., Dubois M. et al. Epidural clonidine analge sia for intractable cancer pain. The Epidural Clonidine Study Gr oup. Pain. 1995; 61: 391-399. 20. Eisenach JC, Shafer SL, Bucklin BA et al. Pharm acokinetics and pharmacodynamics of intraspinaldexmedetomidine in sheep. Anes thesiology 1994; 80: 1349-1359.