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MODERN APPROACH TO OPTIMIZATION OF ANESTHESIA IN DISEASES OF THE CENTRAL NERVOUS SYSTEM

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Conclusion. *U Patients with a history of acute cerebrovascular accident (ACVA) should be assessed for perioperative stroke risk. A history of ACVA is one of the main risk factors for perioperative stroke; management of this category of patients, including preoperative preparation, can be carried out jointly with a neurologist if necessary. It is necessary to establish the etiology of ACVA, and it is desirable that sufficient time has passed since the stroke to restore autoregulation of cerebral blood flow - from 1 to 3 months.*

Patients who have suffered a stroke often receive long-term therapy with drugs that affect the hemostasis system, as well as β-blockers and statins, which reduce tolerance to bleeding, anemia and arterial hypotension.

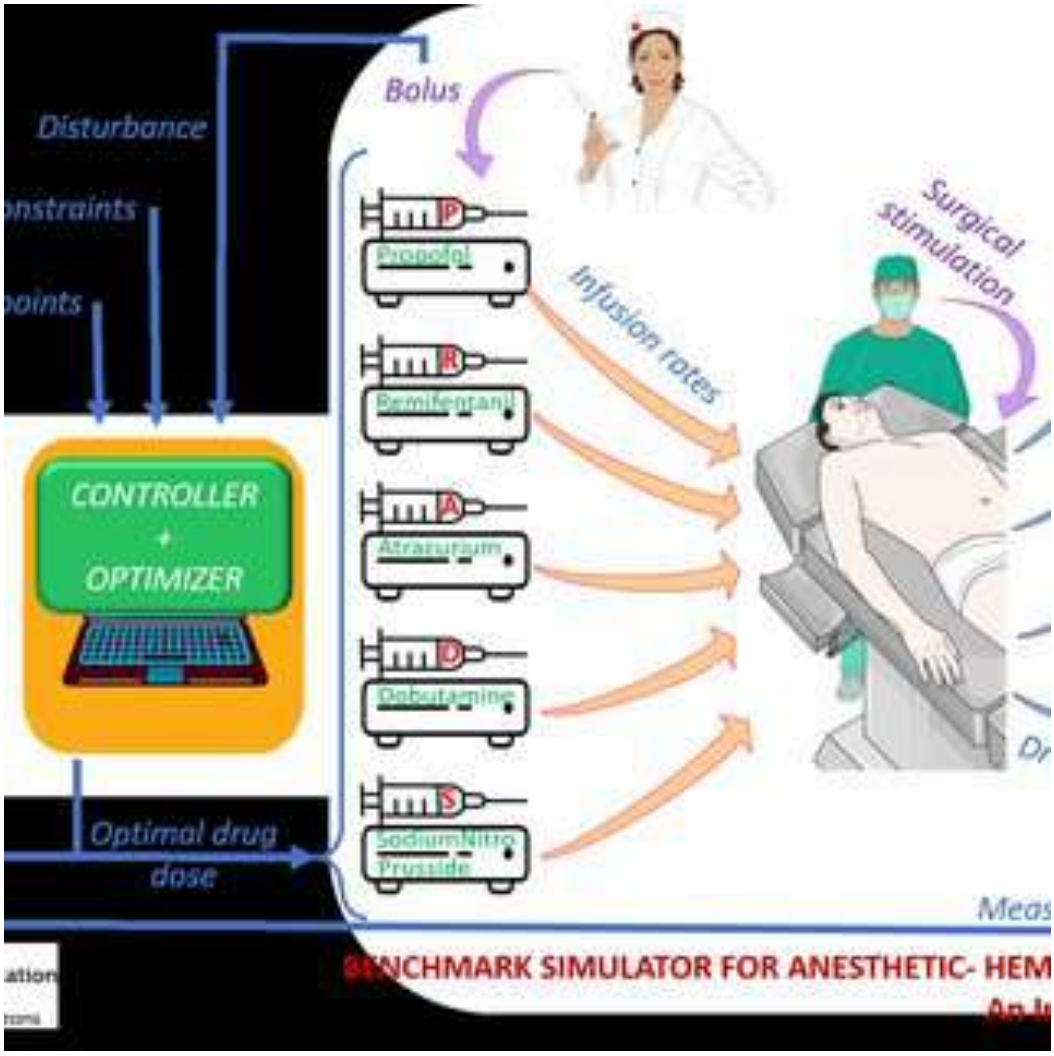
Currently, when choosing anesthesia method are taken into account in this category of patients with a history of stroke about the possible negative impact of anesthesia on the risk of cerebral complications. Maintaining systemic arterial pressure is one of the main tasks in patients with a history of stroke. It should be remembered that the percentage of its decrease from the initial value is a much more important guideline for assessing the development of hypotension than the absolute value. Studies show that a decrease in mean arterial pressure by more than 30% from the initial value is associated with the risk of stroke.

Current evidence suggests that the use of neuraxial anesthesia techniques is associated with a reduced risk of perioperative CVA in high-risk proctology patients

Keywords: *old age, surgical approach, diseases of the nervous system*

Introduction. Evaluation of the effectiveness of anesthetic care in patients acute cerebrovascular accident.

Materials and methods of the study: The study involved 36 patients in the proctology department of the 1st multidisciplinary clinic of the Samarkand Medical University. All patients (aged 62 to 78 years) hemorrhoidectomy , excised fistulas were performed on a planned basis. All those examined in the preoperative period received a consultation with a neurologist. hemostatics , as well as β-blockers. Depending on the applied method of anesthesia, patients were divided into three groups; the 1st group consisted of 12 patients, general anesthesia (GA) was performed using intravenous anesthetics consisting of theopental sodium 0.5±0.2 mg/kg, fentanyl 0.002±0.0005 mg/kg, propofol 0.18±0.51 mg/ kg.h , premedication included diazepam 0.13±0.04 mg/kg, atropine 0.005±0.0005 mg/kg. The 2nd group included 11 patients, premedication was performed with diazepam 0.13±0.04 mg/kg, atropine 0.005±0.0005 mg/kg, spinal anesthesia with 0.5% bupivacaine solution 10.5-12 mg subarachnoid was used as anesthesia .

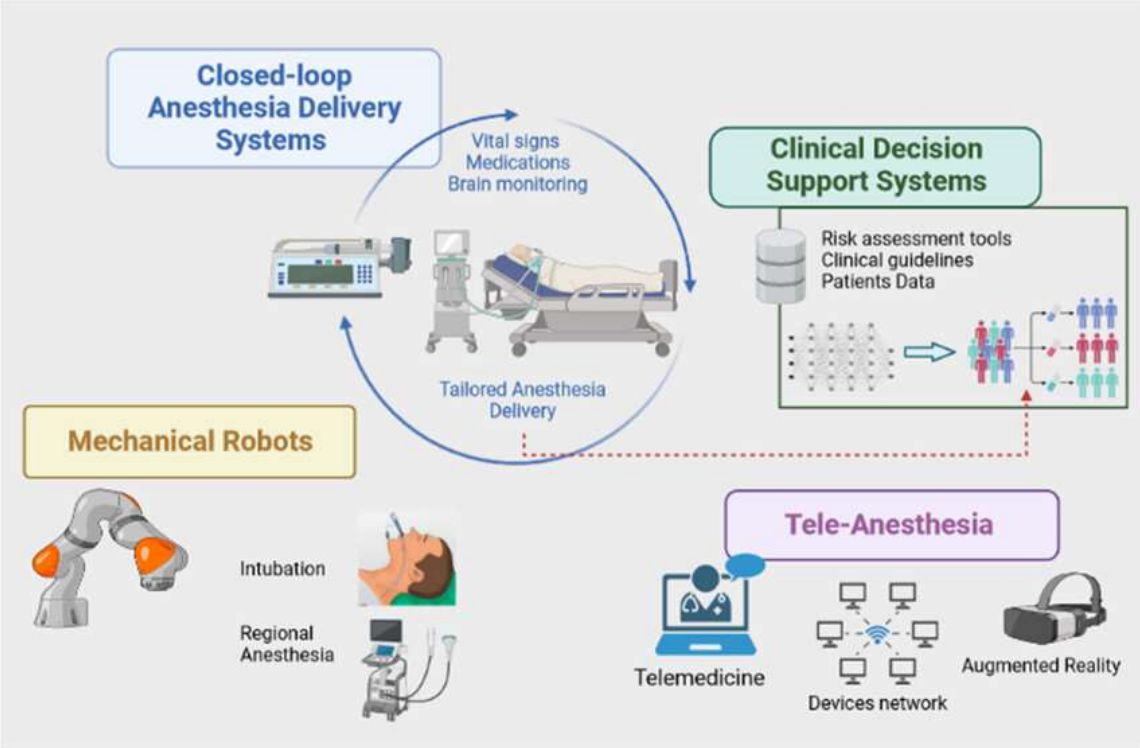


Puncture of the subarachnoid space was performed at the level of L3 - L4 with Pencan 25 G needles . The 3rd group included 13 patients, premedication was performed with diazepam 0.13±0.04 mg/kg, atropine 0.005±0.0005 mg/kg, saddle anesthesia with 0.5% bupivacaine solution 6-8 mg was used as anesthesia . To perform saddle spinal anesthesia, subarachnoid space puncture was performed at the level of L3 - L4 in patients in a sitting position with Pencan 25 G needles . After subarachnoid administration of local anesthetic, patients were in a sitting position for 5-10 minutes until the onset of anesthesia.

The studies were conducted at 5 stages: 1-before premedication (baseline values), 2-on the operating table, 3-before the skin incision, 4-20-30 minutes after the start of the operation, 5-after the end of the operation.

In all three groups, mean dynamic pressure (MDP), heart rate (HR), hemoglobin oxygen saturation (SpO2), cardiac index (CI) and blood glucose were monitored $_{\text{before}}$ and during surgery . Hemodynamic parameters were determined using the Triton monitor (Russia).

Statistical processing of the research results was carried out using multivariate statistical data analysis based on the Statistica PC application software packages . for Windows 5.1. Results were considered reliable if the error probability (P) was less than 0.5.



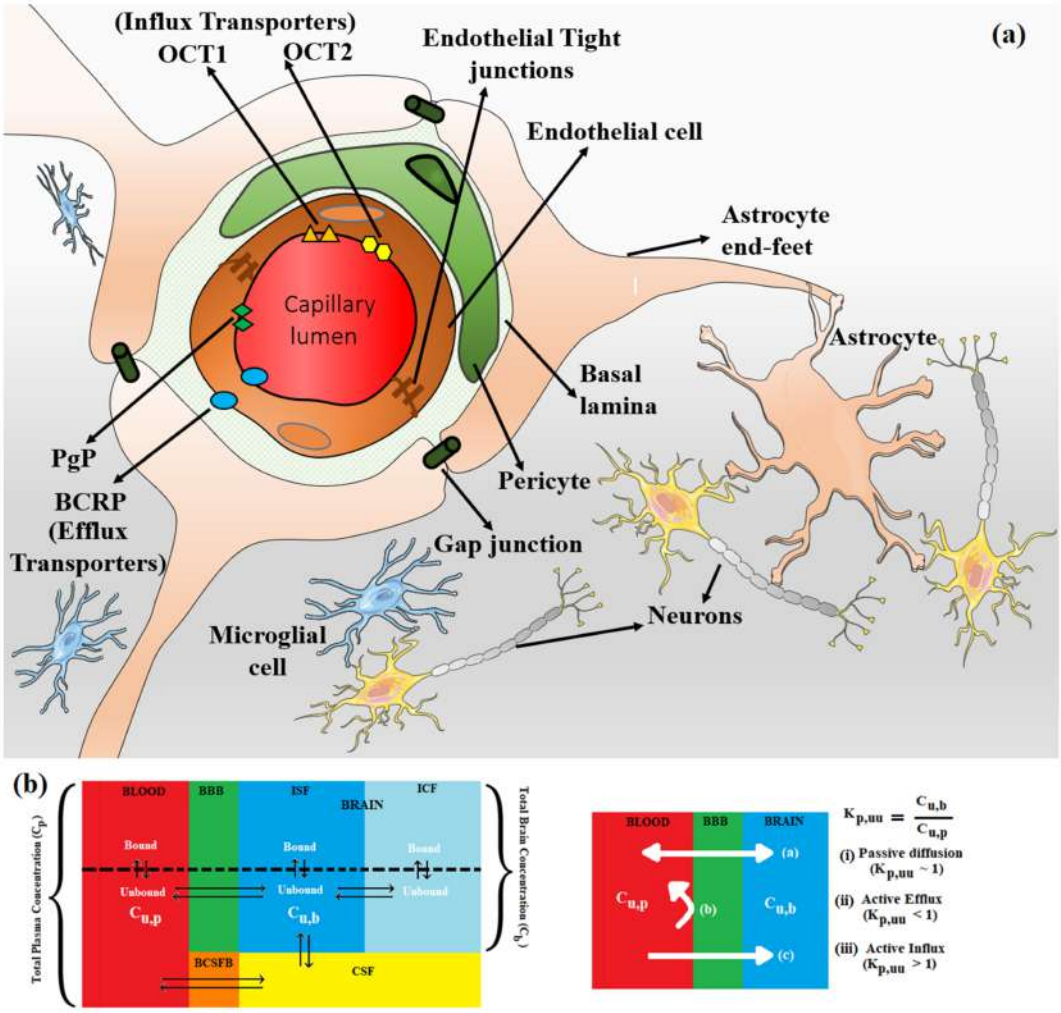
Research results and their discussion: Characterizing the clinical course of OA in the 1st group, we found that signs of complete segmental sensorimotor block formed by the 15-18th minute, the duration of the surgical stage of OA ranged from 40 minutes to 1 hour. When using SMA and SA, signs of complete segmental sensorimotor block developed by the 6-8th minutes from the moment of subarachnoid administration of the calculated dose of local anesthetic and persisted for 1.5-2 hours. During the entire operation, patients in all 3 study groups did not react, did not present complaints.

The initial state (before premedication) of hemodynamics in all three study groups was characterized by tachycardia, increased SDP, decreased one-time and minute cardiac output. The studied parameters in the groups were identical and did not differ significantly from each other. The blood glucose level in all groups ranged from 7.0 to 10.0 mmol/l (Table 1).

After premedication, hemodynamic parameters in all three study groups normalized: tachycardia was not observed, SDP decreased, and one-time and minute cardiac output increased. Changes in SpO2 $_{\text{and}}$ blood glucose were insignificant.

Before the skin incision, against the background of a complete segmental block, classic clinical and functional manifestations of central segmental blockades were recorded in patients of all three groups - a decrease in HR, a decrease in SDP, which were significantly more pronounced when using SA. Thus, SDP and HR in the 1st group of patients decreased by 19.9% and 14.5%, respectively. Against this background, CI decreased from 2.39 ± 0.04 l / m2 / min to 2.07 ± 0.02 l / m2 / min. At the same time, in patients of the 2nd group, the changes in the studied hemodynamic parameters were not so pronounced. SDP and HR decreased only by 11.6% and 9.8%, respectively. CI tended to decrease and amounted to 2.24 ± 0.03 l / m2 / min. In patients of the 3rd group, minimal hemodynamic changes were observed. The SDP and HR decreased by only 4.9% and 2.5%. The CI was 2.36±0.05 l/m2/min, not significantly different from the initial values.

At the most traumatic stages of the operation, 20-30 minutes after the start of the operation, no reliable changes in the studied hemodynamic parameters in all 3 study groups relative to the previous stage were recorded.



The end of the intervention in patients of the 3 study groups was accompanied by a desire to normalize the studied hemodynamic parameters. It should be noted that in patients of the 2nd and 3rd groups, the hemodynamic parameters approached the initial preoperative values. In the 1st group, at this stage of the study, the SDP was 70.2 ± 1.3 mm Hg , CI - 2.0 ± 0.03 l / m2 / min, HR - 72.4 ± 1.4 per min. The analysis data showed that they differed significantly from those in the 3rd group of patients, in whom the SDP, CI and HR by this time were 82.7 ± 1.8 mm Hg , 2.35 ± 0.08 l / m2 / min and 78.8 ± 1.9 per min, respectively.

The results of the study of glucose content indicators revealed a tendency towards an increase in its level when using SMA and OA: from 8.5±0.1 mmol/l to 8.9±0.1 mmol/l and from 8.6±0.2 mmol/l to 9.1±0.1 mmol/l, respectively. Saddle anesthesia resulted in a reliable decrease in glucose content from 8.9±0.1 mmol/l to 8.3±0.1 mmol/l.

After analyzing the results, we note that saddle anesthesia is the method of choice for operations following acute cerebrovascular accidents , since reliable stable hemodynamics was noted in this group.

Conclusions: Saddle anesthesia using low doses of local anesthetic is the method of choice in the treatment of acute cerebrovascular accident. in elderly patients.

In elderly people, acute cerebrovascular accident During surgical interventions, saddle anesthesia has a minimal effect on hemodynamics with a positive effect on blood sugar levels. When using SMA and OA in elderly patients with diabetes, caution is required in carrying out the method, since blood glucose levels tend to increase.

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