Among military personnel Evaluation of systemic hemodynamic parameters during unilateral spinal anesthesia combined with epidural analgesia .

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ABSTRACT

Evidence for the superior quality of spinal anesthesia compared with epidural anesthesia is provided by studies that show a significantly lower increase in blood cortisol levels during abdominal surgery with spinal anesthesia [31, 66; pp. 42-64] and that epidural analgesia provides sufficient blockade of the hormonal response to operative stress only when supplemented with spinal anesthesia [66; pp. 42-64]. There are objective conditions for the occurrence of such problems, which are determined by the anatomical features of the epidural space. In the case of repeated epidural blocks in one patient, adhesions in the epidural space formed after the first procedure may serve as a factor impeding the spread of anesthetic, which indicates a higher incidence of anesthetic failure in patients with a "history of epidural anesthesia". [14; p. 19-23, 32; 33-42, 80; 299-301-b].

Keywords: sensory block, epidural analgesia, unilateral spinal anesthesia

Introduction: Evidence for the superior quality of spinal anesthesia compared with epidural anesthesia is provided by studies that show a significantly lower increase in blood cortisol levels during abdominal surgery with spinal anesthesia [31, 66; pp. 42-64] and that epidural analgesia provides sufficient blockade of the hormonal response to operative stress only when supplemented with spinal anesthesia [66; pp. 42-64]. There are objective conditions for the occurrence of such problems, which are determined by the anatomical features of the epidural space. In the case of repeated epidural blocks in one patient, adhesions in the epidural space formed after the first procedure may serve as a factor impeding the spread of anesthetic, which indicates a higher incidence of anesthetic failure in patients with a "history of epidural anesthesia". [14; p. 19-23, 32; 33-42, 80; 299-301-b].

Study analysis: The following patients were treated with combined epidural analgesia Unilateral spinal anesthesia was performed. The UCA procedure was performed with the patients lying supine (on the side of the surgical procedure). Puncture of the subarachnoid space was performed at the level of the L2-L3 vertebrae using a Quincke (B Bramepencan) needle with a diameter of no larger than 25 G. After the cerebrospinal fluid was drained, 7.5 mg of hyperbaric local anesthetic (0.5% bupivacaine) and 20 µg of fentanyl were

administered intrathecally, observing two conditions :

1) The aperture of the spinal needle is clearly directed down, that is, to the operated leg;

2) The anesthetic was administered very slowly over a period of 90-120 seconds. After the anesthetic was administered, the patient was left in the initial position for 20 minutes to ensure better fixation. After the patient was turned onto his back , the level and quality of sensory and motor block were measured.

Complete sensory block of T12 and 2nd-3rd degree motor block were considered sufficient. Subsequent measurements of the level of block were performed at the end of the operation and every 10 minutes after the operation until complete regression . After performing USA, an epidural puncture was performed at the level of L3-L4 and catheterization was performed, directing the catheter 2-3 cm cranially. After 20 minutes, the patient was placed on his back. In this group of patients , hemodynamic parameters of anesthesia were determined every 5-10 minutes after the anesthetic was administered and standard monitoring of the patient's vital functions was continued.

Conclusions.

1. In order to achieve unilateral CA in the practice of endoprosthetics of the lower extremities using low doses (7.5 mg) of bupivacaine and 20 μg of fentanyl , It is necessary to combine epidural catheterization at the L2-L3 level to provide analgesia during and after surgery .

2. Unilateral sensory and motor block, which ensures rapid recovery and stable hemodynamic status during surgery, can be achieved by slowly injecting low doses of hyperbaric bupivacaine (7.5 mg) into the patient's operating leg with the obligatory addition of an adjuvant (20 μg fentanyl) and keeping the patient in the supine position for 20 minutes. This method of unilateral SA, in combination with epidural analgesia, ensures the maintenance of stable hemodynamic parameters, especially in middle-aged patients.

Literature.

1. Stefan K. Current methods of treatment for trochanteric and femoral neck fractures. // Genij ortopedii. – 2014. – № 1.

2. Cook TM Combined spinal-epidural techniques. Anesthesia. – 2000. – Vol. 55. – P.42-64 .

3. Harrop-Griffiths W., Picard J. Editorial: Continuous regional analgesia: can we afford not to use it? // Anesthesia. – 2001. – Vol. 56. – P. 299-301.