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Case Report

Spinal Anesthesia in Children

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Introduction

The method of choice for general anesthesia of surgical interventions in children with congenital malformations is combined anesthesia with mechanical ventilation. According to foreign authors, central blockade is widely used in patients with different post-conceptual ages during operations. Most pediatric anesthesiologists are reluctant to use spinal anesthesia (CA) in children. Purpose of the study - to study the features and adequacy of spinal anesthesia during operations in children with congenital pathology of the urinary system.

Materials and Research Methods

The object of the study was 34 patients from 3 months to 4 years old who received inpatient treatment for the period from 2014 to 2019 at the RCCH in Donetsk. The score for the operational and anesthetic risk according to the ASA was II-III. degree. Perioperative monitoring of heart rate (beats per minute), RR (breath per minute), SpO₂ (%), blood pressure of the syst. (mm Hg), serum glucose (glucose oxidase unified method), serum cortisol (enzyme-linked immunosorbent assay). Premedication included intravenous administration of 5% ketamine solution at a dose of 1.2-0.8 mg / kg + 0.5% midazolam solution 0.05-0.1 mg / kg with further lumbar puncture with a Spin can 22 GA (0, 7 × 40 mm), in the lateral position, after processing the operating field three times with a solution of 70% ethyl alcohol. 0 was introduced into the subdural space, 5% hyperbaric solution of bupivacaine hydrochloride at a dose of 0.6-0.12 mg / kg. Pre-puncture volemic load included the introduction of 0.9% NaCl solution at the rate of 8-10 ml / kg / hour. In patients, the level of spinal block was assessed using "Pinprick" and "Bromate" tests. Statistical analysis was carried out by the method of variation stat history using the Student's t-test with a significant difference (P < 0.05). By the end of the operation, the children had a decrease in heart rate (P = 0.02), RR what did the values of the norm of the level correspond tonya cortisol - 610.68±138.24 mmol / l, blood glucose - 4.78±0.12 mmol / L with a stable blood pressure levels list. at the stages of the operation that characterized the adequacy of anesthetic management with SA. I would like to note that of patients in the intraoperative period there was no need for mechanical ventilation [1-3].

Findings

SA in the perioperative period eliminated the need for intraoperative and postoperative mechanical ventilation. The likelihood of developing disorders of the respiratory and central nervous system by reducing the dose of psychotropic drugs. The use of this technique for conducting anesthesia was characterized by pronounced antinociceptive protection, adequate correction of stress-induced disorders of homeostasis in children.

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