after anesthesia in different ways: some easy, some not. But adults are aware of their situation and can more or less adequately assess the situation, in which there are. In children, in addition to the severity of the medical condition, feeling pain, there is still not clear to them a sense of confusion.

Therefore, the aim of our study was to define the peculiarities of the period after anesthesia in children after using ketaminee and improve its course.

We have examined 30 children aged 8 to 15 years who used intravenous anesthesia with 5% solution of ketaminee for small surgeries (catheterization of the central vessels, lumbar, sternal and pleural punctures), treated in the infectious department of anesthesiology and intensive care of regional children's hospital in Chernivtsi. The average duration of anesthesia was 30 minutes. For sedation a 0.1% solution of atropine and 0.5% diazepam solution intravenously in doses of age were used. During anesthesia vital parameters were assessed: heart rate, blood oxygen saturation. Oxygen therapy was provided through the front moist oxygen mask.

Depending on transaction of period after usage ketamine anesthesia, children were divided into 2 groups: standard infusion solutions (0,9% sodium chloride solution, 5% glucose) was used for the first group (15 children), Latren as basic solution in infusion at a dose of 10 ml/kg was used for the second group (15 children).

The average duration of the period after usage ketamine anesthesia in children of the I group was 28,3±2,5 minutes and in the children of the II group – 19,2±1,5 minutes ($p<0,05$). Also, in 27% of cases in children of the II group fewer symptoms were observed such as reduced oxygen saturation in the blood. The average oxygen saturation in children of the I group was 84,4±4,1%, and in the second group of children – 93,3±2,2%, $p<0,05$. Also in the second group of children the effects such as dizziness, bronchospasm, and cardiac depression were missing. In general, children of the second group noted the softer course of the period after usage ketamine anesthesia and minor postoperative pain. Analgesics for pain were administered for patients in the first group more often (54%).

Thus, the usage of Latren in the period after usage ketamine anesthesia allows significantly reducing its duration (32%) and preventing adverse effects of this period, contributing to a faster recovery and faster transfer in somatic hospitals.

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PERINATAL RISK FACTORS OF NEONATAL ACUTE KIDNEY INJURY IN UKRAINE: A 5-YEAR RETROSPECTIVE SINGLE-CENTER STUDY

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Neonatal acute kidney injury (AKI) is a common problem in the neonatal intensive care unit (NICU). In most cases, neonatal AKI is associated with a primary condition such as perinatal asphyxia, sepsis, metabolic diseases, and/or prematurity. The risk of AKI in hospitalized critically ill newborns without primary renal disease continues to be high, in both term and premature infants. Several new studies in various neonatal populations show high rates of AKI and continue to illustrate the impact of AKI on outcomes in these groups.

The aim of the study was to identify potential prenatal risk factors of AKI in the NICU. Methods: The study population was 1043 sick neonates (734 non-critically and 309 critically ill patients). All neonates were admitted to NICU (Maternity Hospital №2, Chernivtsi, Ukraine) between 1 January 2013 and 31 January 2017. The definition of AKI proposed by Jetton and Askenazi based on the Neonatal Acute Kidney Injury classification was used: increase of serum creatinine by 0.3 mg/dl from the previous value and/or level of urine output less than 0.5 ml/kg/h for 6 to 12 hours. Maternal and neonatal information was collected through individual medical documents. Multivariate logistic regression analyses were performed with identification of odd ratio (OR) and 95% confidence interval (95% CI).

During the study period 107 term and 172 preterm infants had signs of the multiple organic dysfunction. 35 term (32.7%) and 64 preterm (37.2%) neonates had AKI.

Significant risk factors for AKI in term neonates following multivariate analysis were mother's age more than 35 years (OR 3.21; 95% CI 1.08, 9.54), chronic urinary pathology (OR 2.53; 95% CI 1.05, 6.13), and gestational pyelonephritis (OR 11.8; 95% CI 1.33, 105.36).

In the multivariate logistic analysis, infertility (OR 11.07; 95% CI 1.30, 94.18), twins (OR 4.82; 95% CI 1.44, 16.07) , hydramnion (OR 117.51; 95% CI 2.16, 141.77), anemia (OR 3.14; 95% CI 1.64, 5.99), isthmiccervical insufficiency (OR 17.51; 95% CI 2.16, 141.77), premature rupture of membranes (OR 2.47; 95% CI 1.05, 5.84), abruptio placentae (OR 3.15; 95% CI 1.09, 9.13), chorioamnionitis (OR 5.48; 95% CI 1.07, 28.04) were associated with a greater risk of AKI in preterm neonates.

Thus, 5-year retrospective single-center study showed that risk factors of neonatal AKI are often present in patients of our NICU in both term and preterm neonates. AKI in the neonatal period is frequently associated with negative prenatal conditions, especially in group of preterm neonates. A multiple-center national study is planned with the intention to confirm these results.

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DIAGNOSTIC VALUE OF RUFFIER AND BREATH-HOLDING TESTS

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The deterioration of the child population health of Ukraine registered in recent years. It has been largely due to different diseases. But other factors such as body overweight, insufficient physical activity with reduction in cardiorespiratory fitness and low tolerance for physical loading are a strong predictor of cardiovascular events and respiratory diseases in future. There are a lot of the complex, ambiguous and difficult to perform functional diagnostic methods which may reveal a decrease in cardiorespiratory function reserves and an increase in the risk of diseases. But it is also possible to evaluate optimal efficiency of cardiovascular system by making the easy functional tests. One of them is the Ruffier test, which is simple to perform and with sufficient rate of reliability. We could assess the functional state of the cardiovascular system and readiness of child organism for physical loading. Other simplest tests include breath-holding hypoxic Stange and Genchi probe. They make it possible to evaluate a person's adaptation to hypoxia and hypoxemia, and give some idea of the body's ability to withstand oxygen deficiency. Persons with high levels of Ruffier and hypoxemic tests, better tolerate physical activity and have lower risk of cardiovascular and respiratory events.

Objective of the study was to examine the relationship between a Ruffier and breath holding tests in healthy children. In total 78 children in age 7-15 years were examined. The children did not have chronic diseases and the majority of them led a healthy lifestyle. The study includes assessment of resting anthropometric data, physical activity habits, tests for the functional state of the cardiovascular system and readiness of child organism for physical loading (Ruffier and breath-holding hypoxic tests Stange and Genchi). Statistical analysis conducted with program Statistica.

Children were asked to sit and rest for 5 minutes. Resting heart rate (HR) was collected at the end of 5 minutes (P1). The HR before testing in average was 80.6±1.28 beat per minute. Immediately after performing 20 squats in 60 seconds in average HR (P2) was 120.4±1.52 beat per minute and recovery post-test level HR (P3) was 86.8±1.37 beat per minute. Based on the three HR measurements, the Ruffier Index (RI) was calculated and average level was 8.75±0.32 units. By the assessment scale children were belonged to four groups: persons with excellent endurance (RI from 0 to 5) were absent, with good endurance (RI from 5 to 10) were 60 persons (76.9%), with moderate endurance (RI from 10 to 15) were 14 persons (17.9%) and with poor endurance (RI from 15 and up) were 4 persons (5.2%). The average level of breath-holding test Stange was 37.0±1.8 sec (with range from 13 to76 sec) and Genchi – 22.2±1.3 sec (with range from 13 to 49 sec). Test Stange has negative correlation with RI ($r=-0.31$, $p<0.05$).

By analyzing data all children were divided in two groups according to median of RI (8.0). A better RI correlated with lower body mass index (15.9 kg/m^2 against 17.3 kg/m^2), higher level of