# КЫРГЫЗСКАЯ ГОСУДАРСТВЕННАЯ МЕДИЦИНСКАЯ АКАДЕМИЯ им. И.К. АХУНБАЕВА

ФЕДЕРАЦИЯ ПЕДИАТРОВ СТРАН СНГ

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## Сборник материалов

«Х юбилейный Конгресс педиатров стран СНГ «РЕБЕНОК И ОБЩЕСТВО: ПРОБЛЕМЫ ЗДОРОВЬЯ, РАЗВИТИЯ И ПИТАНИЯ» и II съезд детских хирургов Центральной Азии» 14-16 сентября 2023 г.

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### LABORATORY TECHNIQUES FOR RAPIDLY DETECTING THE FORMATION OF KIDNEY STONES IN CHILDREN

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Objective. The aim of this study was to investigate the clinical effectiveness of specialized urine tests in early prevention and preventive measures against urolithiasis in children.

Materials and methods. We conducted a prospective observational study involving 80 patients, divided into two groups. The first group included 40 patients diagnosed with urolithiasis, while the second group consisted of 40 healthy children. Specialized urine tests were performed on both groups.

Results. The stability of urine pH was measured before and after 48 hours of incubation at 37°C in a thermostat. After 48 hours, it was observed that the urine pH increased and there was a formation of phosphate crystals in 5 out of 125 patients in the main group. Statistically significant differences were identified when comparing the urease activity of urine and the chemical composition of crystals (p < 0.0001). High urease activity (324 mmol/L) was observed only in urine samples with phosphate and ammonium biurate crystal formations. Urease activity was also compared with the type of bacterial pathogens present in urine samples. Based on the results of the specialized urine tests, we developed an algorithm for personalized prevention and preventive measures against urolithiasis in

Conclusions. Our study demonstrates that specialized urine tests can effectively determine the presence of urine crystal formation, identify the chemical composition of the crystals formed, and assess the speed of crystal formation. These findings are crucial in guiding the individualized treatment approach for the prevention and preventive measures against urolithiasis in children.

#### MINIMALLY INVASIVE TREATMENT OF CONGENITAL HYPERTROPHIC PYLOROSTENOSIS'IN CHILDREN

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Relevance. Congenital hypertrophic pyloric stenosis among the surgical pathology of infants occupies one of the leading positions. The risk of developing pyloric stenosis is due to the rapid progression of clinical manifestations such as acidosis, hypokalemia, azotemia, and increasing underweight. In connection with the foregoing, the treatment of hypertrophic pyloric stenosis is one of the urgent problems of modern pediatric surgery. The problem of early diagnosis and timely surgical treatment of pyloric stenosis remains relevant.

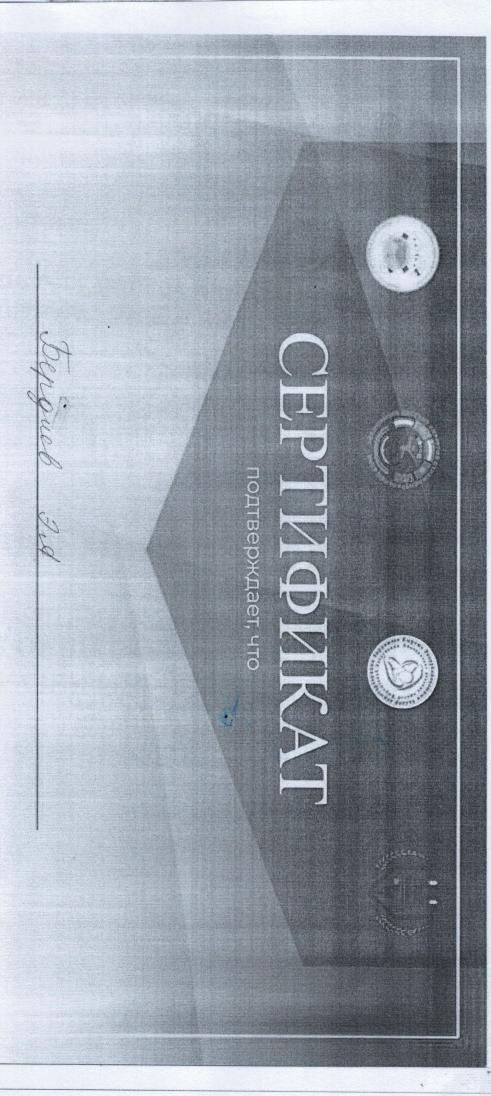
The aim of the study. to improve the results of endosurgical and treatment of pyloric stenosis in children

Material and methods. From 2015 to 2022, 11 children with suspected congenital pyloric stenosis were admitted to the Republican Scientific and Practical Center for Minimally Invasive and Endovisual Surgery for Children. Of these (8 boys, 3 girls). Age of patients from 3 weeks. up to 5 months. The duration of the disease varied from 7 days to 4 weeks. Children underwent clinical and laboratory, X-ray, ultrasound examination. In the study of laboratory data, signs of anemia, hypoproteinemia, bilirubinemia and electrolyte disturbances were evaluated. Of the additional methods to confirm the diagnosis, X-ray of the gastrointestinal tract with a water-soluble contrast agent was used in 5 children. Ultrasound examination of the stomach was carried out in combination with the above methods in all children. All children with a confirmed diagnosis of congenital pyloric stenosis after preoperative preparation (correction of anemia, electrolyte disorders, hypoprotenemia) underwent endovideolaparoscopic pyloromyotomy, 3 children underwent Frede-Weber-Ramstedt pyloromyotomy.

Results. The postoperative period in both groups proceeded without complications. In the group of patients who underwent endovideosurgical intervention, the postoperative period was easier, and the average bed-day was reduced. In addition, there was a good cosmetic result. Of the children who underwent Frede-Weber-Ramstedt pyloromyotomy, one patient had a ligature fistula on the 5th day

after the operation, after surgical treatment of the wound, healing was secondary.

Conclusions: When establishing the diagnosis of congenital pyloric stenosis, there is no need to perform esophagogastrofibroscopy, there is no need for lengthy preoperative preparati



ПРОБЛЕМЫ ЗДОРОВЬЯ, РАЗВИТИЯ И ПИТАНИЯ» и получил(-ла) 18 кредит-часов. Х юбилейный Конгресс педиатров стран СНГ «РЕБЕНОК И ОБЩЕСТВО: приянл(-ла) участие 14-16 сентября 2023 года в работе:

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