

CURRENT TRENDS IN FORMATION OF URINARY SYSTEM DISEASES IN SCHOOL AGE CHILDREN AND FEATURES OF THEIR COURSE

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ABSTRACT

In the complex treatment of acute and chronic kidney diseases in children, diet therapy plays an important role. High requirements are imposed on therapeutic nutrition, since the kidney is the main organ for the excretion of metabolic products that come with food and are formed as a result of the breakdown of body tissues, as well as the organ responsible for maintaining the constancy of the internal environment. Under certain conditions, it becomes necessary to correct in the diet of nutrients such as animal protein, gluten, oxalates, urates, phosphates, the metabolic products of which are excreted through the kidneys and affect not only the pathogenetic mechanisms of the development of the disease, but also participate in the formation of non-immune processes of progression disease to the stage of renal failure.

Keywords: children, dysmetabolic nephropathy, crystalluria, oxalaturia.

СОВРЕМЕННЫЕ ТЕНДЕНЦИИ В ФОРМИРОВАНИИ ЗАБОЛЕВАНИЙ МОЧЕВЫВОДЯЩЕЙ СИСТЕМЫ У ДЕТЕЙ ШКОЛЬНОГО ВОЗРАСТА И ОСОБЕННОСТИ ИХ ТЕЧЕНИЯ

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РЕЗЮМЕ

В комплексном лечении острых и хронических заболеваний почек у детей диетотерапия занимает важное место. К лечебному питанию предъявляются высокие требования, так как почка является основным органом выделения продуктов обмена веществ, поступающих с пищей и образующихся в результате распада тканей организма, а также органом, ответственным за сохранение постоянства внутренней среды. При определенных состояниях возникает необходимость коррекции в рационе питания таких нутриентов, как животный белок, глютен, оксалаты, ураты, фосфаты, продукты обмена которых выводятся через почки и влияют не только на патогенетические механизмы развития заболевания, но и участвуют в формировании неиммунных процессов прогрессирования болезни до стадии почечной недостаточности.

Ключевые слова: дисметаболическая нефропатия у детей, диетотерапия, кристаллурия, оксалурия.

MAKTAB YOSHIDAGI BOLALARDA SIYDIK CHIQRISH TIZIMI KASALLIKLARI SHAKLLANISHINING HOZIRGI TENDENTLARI VA ULARNING KECHISH XUSUSIYATLARI.

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REZYUME

Bolalardagi o'tkir va surunkali buyrak kasalliklarini kompleks davolashda dietoterapiya muhim o'rin tutadi. Terapevtik ovqatlanishga yuqori talablar qo'yiladi, chunki buyrak oziq-ovqat bilan birga keladigan va tana to'qimalarining parchalanishi natijasida hosil bo'lgan metabolik mahsulotlarni chiqaradigan asosiy organ, shuningdek ichki muhit barqarorligini saqlash uchun mas'ul bo'lgan organdir. Muayyan sharoitlarda metabolik mahsulotlar buyraklar orqali chiqariladigan va nafaqat kasallik rivojlanishining patogenetik mexanizmlariga ta'sir qiladigan, balki immunitetga ega bo'lmagan progressiv jarayonlarning shakllanishida ishtirok etadigan hayvon oqsillari, oksalatlar, uratlar, fosfatlar kabi ozuqaviy moddalarni tuzatish zarur bo'ladi.

Kalit so'zlar: bolalarda dismetabolik nefropatiya, dietaterapiya, kristaluriya, oksaluriya.

Diseases of the urinary system among children around the world are becoming one of the urgent problems. According to the information of the World Health Organization, the complications of kidney diseases are important for the public health system in all countries, and it is observed that it is related to the area of residence, lifestyle, gender, age, nutritional status of the population, and under the influence of environmental factors, it poses a threat to the lives of children and adults.

Data from a number of population studies show an increase in the number of patients with diseases of the urinary system (SIT). In particular, congenital kidney defects and dysmetabolic nephropathy lead to high growth rates and changes in the structure of the kidney [1,2,5,7]. In recent years, researchers and scientists, despite the progress made in the treatment of dysmetabolic nephropathy in children, need to improve treatment methods and prevent the most severe consequences of the disease, the implementation of effective preventive measures remains one of the most urgent problems in modern pediatric nephrology [3,5,7,8].

The Purpose Of The Study. Study Of Prevalence Of Oxalate Nephropathy In Preschool And School-Age Children In Khorezm Region And Improvement Of Preventive And Rehabilitation Measures In Them.

Research Methods. Retrospective Data, Anamnesis Collection, Clinical-Biochemical And Functional Examination Methods, Determination Of Oxalate Excretion In Daily Urine.

Practical Results of The Research. Our Work was carried out in 3 stages.

Stage 1. History of children's development (f.112), from medical histories of the somatic department (f.003). The use and effectiveness of therapeutic and preventive measures in children treated in hospital with DMN, SYI and other kidney diseases was determined retrospectively.

Stage 2. General clinical examinations were conducted among healthy children, i.e., children who did not complain of symptoms of kidney disease, taking into account the clinical course of the disease in the early stages of DMN, almost no complaints in patients, and the appearance of salt crystals in the urine. 960 of 1309 children without complaints of SIT diseases, 73% of children had salt crystals in their urine, i.e., elements of the initial stage of DMN, nosological pre-stage, and 27% of children did not have any clinical symptoms. Manifestation of persistent crystalluria and microhematuria was 27.7% in preschool children in the main group. In the main group during the school period, more than half of the respondents had insignificant proteinuria, as well as morning eyelids, pain in the lower back, lower abdomen from time to time. Despite the early onset of metabolic diseases, the risk of STK formation (7%) ($R < 0.05$) was observed in children over 10 years of age. Enuresis occurred in up to 4.5% of preschool children, but not at all in school-aged children. Physical retardation was almost the same in children of school age (11.4%) as compared to children of preschool age (11.1%).

Stage 3. In the complex treatment of oxalate nephropathy in Khorezm region, taking into account actual nutrition and drinking water, we used Uralesan syrup as an antioxidant drug that improves metabolic processes in the body. In our research, 170 children were selected from among 840 children aged 7 to 15 years with oxalate nephropathy.

According to statistics from 2015 to 2020 in Khorezm region, urinary system diseases in children are increasing from year to year. In 2015, SIT diseases in children made up 28.5% of the region, and by 2020, this figure was 45.6%. When we looked at the retrospective re-analysis of the medical history of 2976 children under the age of 3-15 who were treated only in the children's department in hospitals in 2015-2020, it was found that 220, that is, 74% of the children had oxalate salts in their urine.

The examined children were divided into 4 groups:

1. Control group - 20 children - treated with 2 courses of vitamins;
2. The group of children who received Uralesan syrup - 40 children. A 1-month course of treatment is prescribed according to the age of the dose;
3. The group of children who received only diet for a year - 80 children.
4. 50 children in the group of children receiving Uralesan+ diet. They undergo a course of treatment for 1 month in age-appropriate doses.

Daily amount of oxalates in urine in children of the 1st control group treated with vitamins did not differ from the pre-treatment state to the post-treatment state (before 1475.7 ± 63.8 $\mu\text{mol/milk}$, then 1340.1 ± 61.9 $\mu\text{mol/milk}$, $R < 0.05$). The amount of oxalates did not decrease to the normative level. In contrast, after 6 months, these children showed an increase of 82% in the urine of oxalate salts.

In group 2, children who received only Uralesan syrup, the daily amount of oxalates in urine was significantly different from before treatment to after treatment (before 1751.0 ± 88.6 $\mu\text{mol/milk}$, then 964.9 ± 52.8 $\mu\text{mol/milk}$, $R < 0.05$). The content of oxalates in the urine of these children decreased by almost 2 times. The main reason for this is that the drug Uralesan

increases the excretion of urea and chlorides, and has the property of helping to expel small stones and sand from the bladder and kidneys. However, on the 30th day of treatment, crystalluria with oxalate was observed in 12% of children in this group, and the same condition was detected again during examination 3 months after the start of therapy. After taking Uralesan drug, diuresis increased somewhat (before 796.3 ± 83.6 ml/day, then 1126 ± 60.5 ml/day, $R < 0.05$). This is the proof that the drug Uralesan enhances diuresis.

In the groups that performed the rehabilitation process only with diet 3, the amount of oxalates in urine decreased significantly (before 1765.6 ± 87.2 $\mu\text{mol/milk}$, then 1077.5 ± 55.1 $\mu\text{mol/milk}$), but did not reach the normative amount (in the norm 100-200 $\mu\text{mol/milk}$ in children aged 3-15). So, in the case of oxalate nephropathy, diet alone is not enough to get rid of oxalate salts. Daily diuresis is relatively low in children of this group. Even after treatment, it did not change significantly, it increased only by 140 ml (before 737.5 ± 82.3 ml/milk, then 873.1 ± 91.1 ml/milk, $R < 0.05$).

4-The amount of oxalates in the urine of children recommended together with Uralesan+diet decreased by 3 times (before 1757.0 ± 88.9 $\mu\text{mol/milk}$, then 665.78 ± 49.3 $\mu\text{mol/milk}$). It should be said here that Uralesan+diet, together with elimination of the alimentary factor in the body, prevents the formation of oxalates by forming a protective colloid in the urine. Diurnal diuresis was less secreted in children of this group before treatment. After taking Uralesan+diet together, diuresis increased and reached the daily norm (before 828.6 ± 84.2 ml/day. then 1222.2 ± 96.8 ml/day, $R < 0.001$). KFT increased by 50%, and in children of the 1st, 2nd and 3rd groups, this indicator did not exceed 7-10%. KFT shows a 2-fold increase compared to the previous state. Here, once again, we were convinced that the drug Uralesan enhances diuresis.

CONCLUSIONS

Thus, the results of the study show that in the rehabilitation period of oxalate nephropathy among schoolchildren and preschool children in Khorezm region, the 4th group, Uralesan+diet, was more effective in children who were used together. Administration of the drug together with the diet helps to normalize metabolic processes, strengthen cytomembranes, has an anti-inflammatory effect on the kidney parenchyma, and improves capillary blood flow. This complex can be recommended for complex therapy of children with oxalate nephropathy. Therefore, the criteria for the risk group of dysmetabolic nephropathy in children and the early diagnosis algorithm were developed and are recommended for practice.

REFERENCES

1. Averyanova N.I., Balueva L.G. Oxalate crystalluria and detection// Mejdunarodnyy zurnal prikladnyxi fundamentalnyx issledovaniy.-2012.-№2.-S.25-28
2. Baranov A.A. co-authors., Sanatorno-kurortnoe lechenie pri zabolevaniyax pochek. 2008;
3. Baranov A.A. co-authors, Voprosy sovremennoy pediatrii / 2008/ TOM 7/ № 1.;
4. Starodubov V.I. co-authors., Reformy zdovoohraneniya v Uzbekistane. No. 6 of 2004;
5. Smirnova I. S., Ignatova O. A. Faktory riska razvitiya secondary oksalurii u detey. // Ekologiya cheloveka.- 2009.-№11.-S.57-62.

6. Kitaeva Yu.Yu. Dissertation in 2011 on the topic "Epidemiology and prevention of chronic diseases of pochek and detey and podrostkov". Nauchnaya biblioteka dissertatsiy i avtoreferatov 2011)
7. Ignatova M.S. (ed.). Rol neblagopriyatnykh ekologicheskikh faktorov na razvitie nefropatii u detey. Detskaya nephrology. M: MIA 2011; 75–81.
8. Ignatova M.S., Korovina N.A. "Diagnostics and lechenie nefropatii u detey". Management for doctors. 2007;
9. Shaikhova G.I. Biological significance of food components. Healthy eating is a criterion of health. Monograph. 2015.
10. Unsal A. et al. // J Endourol, 2013. Standard and tubeless mini-percutaneous nephrolithotomy: a randomized controlled trial. Arab Journal of Urology Volume 14, Issue 1, March 2013.
11. Khudaibergenov Ulugbek Atullaevich. Ranyaya diagnostika i prophylactica rasprostranennyx urologicheskikh zabolevaniy v usloviyax pervichnogo zvena zdravohraneniya. diss. robota 2018.