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Clinical-Laboratory Features, Diagnostics of Bollard Pyelonephritis during the Covid-19 Pandemic

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Abstract: During the years 2019-2021, in connection with the pandemic of the new viral SARS-CoV-2 (COVID-19) infection, which spread among mankind, many scientific researches are being conducted on the diagnosis, treatment and prevention of the Covid- 19 virus . It was observed that the incidence of Covid-19 infection among children increased significantly during 2021. Children with a premorbid background can be included in the group of children who are prone to severe cases of COVID-19 (lung diseases, Kawasaki disease, various immunodeficiency conditions, kidney diseases, etc.). It is known that children over 5 years of age are most often affected. It is said that the disease is often asymptomatic, but children with kidney disease have a severe and protracted disease course. The epidemiology of the COVID-19 disease among children and the pathogenetic mechanisms of damage to various organs, morphology, clinical course, laboratory diagnostics, treatment and rehabilitation have not been fully resolved in pediatric practice.

Keywords: Covid-19, pandemic, children, pyelonephritis, proteinuria, leukocyturia, hematuria.

Relevance of the topic . In all countries of the world, including developing countries, there is an increase in chronic progressive kidney diseases that lead to chronic kidney failure . Pyelonephritis remains a disease of certain medical, social and economic importance. This is confirmed by international kidney registries that have existed for many years. Among the reasons for the insufficient effectiveness of treatment of patients with pyelonephritis, the fact that the foundations of its pathogenesis have not been fully revealed has a special place. At the beginning of 2019-2020 , humanity faced the infection of a new virus SARS-CoV-2 (COVID-19), which spread rapidly in many countries and reached the level of a pandemic. In April 2020, experts from Wuhan Central Hospital published a study investigating the effects of the coronavirus on kidney function. Kidney damage was found in 27.06% of hospitalized patients with coronavirus infection. It is known that COVID-19 uses 2 types of angiotensin-converting enzyme receptors (AC E 2) to enter cells . A C E 2 is highly expressed in the kidneys. Therefore, kidney disease is a factor that causes the origin of the COVID-19 infection and aggravates the clinical course of the disease. The purpose of the work is to determine the clinical and laboratory characteristics of pyelonephritis in children living in Samarkand region who have been in contact with the disease of COVID-19, children with pyelonephritis, early diagnosis. Object and subject of the study: 40 patients with pyelonephritis aged 3 to 15 years who were in

contact with the COVID-19 disease. Groups of children to be examined: 40 children who were treated in inpatient and outpatient clinics in Samarkand region in 2021 participated in the study All children included in the study are divided into 2 main groups. Group I - 22 patients with pyelonephritis who were in contact with the disease of COVID-19. Group II - 18 patients with pyelonephritis who were not in contact with the disease of COVID-19. Inspection methods: 1. General clinical anamnesis, genealogical analysis, medical examination, blood and urine analysis, IFA analysis, urine and urine biochemical analysis2. Instrumental - renal UTT with dopplerometry, blood pressure measurement. 3. Evaluation of renal concentration function using the Zimnisky test. Results of clinical examination. PSR and IFA analyzes were performed in the first group of children, according to the results, 13 (59%) IFA analyzes , 9 (41%) showed positive PSR analysis.

Children in the first group had general intoxication syndrome in 19 (86.36%), dysuric events in 12 (54.54.1%), pain syndrome in 8 (36.3%), temperature reaction in 20 (91%) appeared in the form. Clinical manifestations of pyelonephritis in the second group were temperature reaction in 12 (66.6 %), signs of intoxication in 10 (55.5%), pain syndrome in 4 (22.2.1%), 3 (16.6%)) dysuria syndromes were observed. Leukocyturia was detected in 18 (81.8%) children of the first group . Proteinuria from 0.03 to 2.72 g/l was detected in most of the patients -19 (86.3%) of the first group and to a lesser extent -10 (55.6%) of the second group ($p < 0.05$). Hematuria, a very rare symptom of acute kidney injury, was observed in 9 (40.1%) patients of the first group and 1 (5.5%) of the second group. Results of laboratory analysis. The activity of the inflammatory process was assessed by the number of leukocytes, neutrophil granulocytes and the rate of erythrocyte sedimentation in peripheral blood . Thus, in 21 children of the first group (95.4%), EChT was observed from 17 to 38 mm/h, and leukocytosis was observed from 13 *109 to -35*109. In group 2 patients, EChT was detected relatively less -8 (44.4%) ($p < 0.01$), neutrophil leukocytosis-6 (33.3%) ($p < 0.05$). Symptoms of mild anemia were found in 7 (31.8%) children of the first group, 5 (22.7%) of moderate severity, and 1 (4.5%) girl with severe anemia. In the second group, 4 (22.2 %) had mild anemia , 2 (11.1%) had moderate anemia. Functional reserve of kidneys and concentration function of kidneys were measured using Zimnisky's test. In order to more accurately evaluate this function, an analysis was conducted through the test of eating dry products. Conclusion. Pyelonephritis in children who have been in contact with COVID-19 is characterized by the predominance of signs of intoxication. Recurrent course of chronic pyelonephritis was observed. Body temperature over 39 (54.5%), local pain syndrome, predominance of proteinuria in urine was observed in children who were in contact with COVID-19, a severe, convulsive course of the disease was observed.

References:

1. Ibrokhimovich, Akhmedov Ilkhom, and Jaloldinova Madina Mirodil Kizi. "Improving the Effectiveness of Research, Treatment and Prevention of Caries in Children with Type 1 Diabetes." *Scholastic: Journal of Natural and Medical Education* 2.4 (2023): 182-187.
2. Kamalova, Feruza R., Oynisa O. Yarieva, and Ilkhom I. Akhmedov. "Risk factors for oral diseases in children with diabetes mellitus." *Journal of Natural remedies* 22.1 (1) (2021): 57-63.
3. Ibrokhimovich, A. I., and J. M. M. Kizi. "1-Type Kandli Diabetes Bilan Kasallangan Bolalarda Caries Kasalligini Organish, Davolash Va Prevention Samaradorligini Oshirish." *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI* 2.4 (2023): 165-171.
4. Akhmedov Ilkhom Ibrokhimovich, & Navruzova Ugilkhan Orzizjon Kizi. (2023). Or Pathogenesis of Periodontal Disease in I and II Levels of Obesity. *Central Asian Journal of Medical and Natural Science, 4*(6), 1007-1010. Retrieved from https://cajmns.centralasianstudies.org/index.php/CAJMNS/article/view/2178

5. Ibrokhimovich, A. I., Jurakulovna, J. E., & Ilhomovna, A. A. (2024). Or Pathogenesis of Periodontal Disease in I and II Levels of Obesity. *Best Journal of Innovation in Science, Research and Development*, *3*(1), 165–169. Retrieved from https://www.bjisrd.com/index.php/bjisrd/article/view/1395

6. Kamalova, F. R. ., Akhmedov, I. I. ., & U.O, N. (2023). Experience in The Use of Antibiotics in The Treatment of Abscess Phlegmon of The Maxillofacial Area in Children. *Journal of Advanced Zoology*, *44*(S7), 33–35. https://doi.org/10.17762/jaz.v44iS7.2651

7. Иброхимович, А. И. ., & Қизи, Ж. М. М. . (2023). 1-Тип Қандли Диабет Билан Касалланган Болаларда Кариес Касаллигини Ўрганиш, Даволаш Ва Профилактика Самарадорлигини Ошириш. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, *2*(4), 165–171. Retrieved from https://sciencebox.uz/index.php/amaltibbiyot/article/view/6735

8. Орзижоновна, Н. У., & Миродил Қизи, Ж. М. (2023). Врожденные Пороки Сердца И Их Трансирация У Новорожденных. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, *2*(4), 12–15. Retrieved from https://sciencebox.uz/index.php/amaltibbiyot/article/view/6516

9. Navruzova Ugilkhon Orzijon Kizi, Teshayeva Huriyat Muhiddin Kizi, & Boymurodova Mohinabonu Tursunovna. (2024). Early Detection of Changes in the Cardiovascular System in Patients with Diabetes. *American Journal of Pediatric Medicine and Health Sciences (2993-2149)*, *2*(1), 100–102. Retrieved from https://grnjournal.us/index.php/AJPMHS/article/view/2524

10. Navruzova Ugilkhon Orzijon Kizi, Jalolov Ismoil Ismat O'g'li, & Ergashev Shahzod Shukhrat O'g'li. (2024). Influence of Swimming Sports on the Functional State of the Blood Vessel System. *American Journal of Pediatric Medicine and Health Sciences (2993-2149)*, *2*(1), 92–94. Retrieved from https://grnjournal.us/index.php/AJPMHS/article/view/2521

11. Kizi, N. U. O., and S. L. A. Ugli. "Improving the Effectiveness of the Study, Treatment and Prevention of Caries in Children with Type 1 Diabetes." *European Multidisciplinary Journal of Modern Science* (2022): 75-78.

12. Navruzova, U. O., M. A. Sadulloeva, and F. G. Voxidova. "Osobennosti proyavleniya covid-19 u bemorov va bronxialnoy astmoy." *Barkarorlik va etakchi tadqiqototlar onlayn ilmiy jurnaly* 2.8 (2022): 149-158.

13. Navruzova, U. "Sovremennye aspekty etiopatogeneza generalizovango parodontita (obzor literatury)." *Biologiya va integratsiya tibbiyot,(2 (30))* (2019): 62-89.

14. Kizi, N. U. O., Fazliddinovna, E. G., & Najmiddinovna, A. N. (2022). Coronavirus Complications, Post Illness Medicines and Vitamin Therapy. *Central Asian Journal of Medical and Natural Science*, *3*(6), 551-556. https://doi.org/10.17605/OSF.IO/HQ4YZ