The Main Factors of Exacerbation of Chronic Glomerulonephritis in Children

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Abstract: Kidney disease will have an effect on youngsters numerous ways that, starting from treatable disorders while n semipermanent consequences to serious conditions. Acute ren disorder develops suddenly, lasts a brief time, couldand might l serious with lasting consequences or may depart utterly once tl underlying cause has been treated. Chronic renal disorder (CKD) doesn't depart with treatment and tends to urge worse over time CKD eventually ends up in renal disorder, delineate as end-stage renal disorder or ESRD once treated with a urinary organ; transplant or blood-filtering treatments referred to as qualitative analysis. Unique challenges exist in the diagnosis and treatment of glomerular diseases with their onset during childhood. In both developing and developed countries, there is a strong relationship between infectious diseases and nephritis onset or relapse. Although research has led to a better understanding of how classify and manage glomerular diseases in children, the need for disease-specific biomarkers of activity and chronicity remains a hurdle. The strength of the immune system and the growth and maturation that occurs during adolescence are unique and require age-specific approaches to disease management.

Key words: children's, chronic glomerulonephritis, frequency, clinical course, virus-associated, risk factors, disabled, chronic glomerulonephritis, end-stage kidney injury, dialysis

Introduction. Viral infections associate temporally with the onset of many glomerular diseases, particularly in children. In other cases of glomerulonephritis, when infection is clinically silent, viral syndromes can still be implicated as a trigger. However, strong evidence for viral causality in most glomerular disease is still lacking-[6].

Even though, not any culture of virus has been decisively established to cause any specific renal pathology, few glomerular diseases are linked to infection or host antiviral responses. Majority of these association studies are dated and involve small numbers of patients. A review of these affiliations is ensured now that novel molecular diagnostics are available, many glomerular disease...
classifications have been reconsidered and vaccines have changed the patterns of viral infection. Eventually, pediatric nephrologists may discover that outcomes of viral-associated glomerulopathies differ noticeably from those of the truly idiopathic forms-[7].

The cases of GCN is about 13-50 cases per 10,000 population, and because of the progressive course, patients with GCN makes up the most cohort of medical specialty and haemodialysis departments, and at the stage of terminal nephropathy they become disabled, that could be a tragedy for the family and puts a significant burden on the state-[2].

Although kidney disease is much less common in children than in adults, clinicians must remain alert for the renal conditions that occur in this population because prompt diagnosis and management are essential. Nephrotic syndrome commonly is related to steroid-responsive minimal change disease, and follows a course of relapses and remissions over time. However, a minority of children have steroid-resistant disease with potential for poor renal outcome.[3]

There is no exact evidence on the role of individual risk factors touching the course of GN. The persistence of microorganism or infective agent infections is taken into account to be of nice importance within the progression of chronic glomerulonephritis-[4, 5].

In accordance with the International Committee on Taxonomy of Viruses, there are seven orders, 103 families, 455 genera and more than 2,800 species of viruses. Although only a fraction of these species are known to infect humans, the number of human viral pathogens continues to increase. Viruses in general are polytropic, affecting several tissues or organ systems. Kidney cells often are infected during viral illnesses but appear to be unusually resistant to injury compared to other organs and tissues. Both viruria and viremia are often measurable during viral syndromes. Human kidney cells have commonly been used to culture several viruses in the laboratory, including adenovirus, cytomegalovirus (CMV), Coxsackievirus, measles and varicella viruses. The kidneys rarely bear the brunt of infection, either from cytotoxic effects or the host antiviral responses, which is in contrast to viral arthritis, hepatitis, meningitis, otitis, pharyngitis, pericarditis, pneumonitis and tonsillitis, to name a few. When kidney infection leads to kidney injury, it may be indistinguishable from that of non-infectious etiologies-[6].

Building up a viral related glomerulopathy requires demonstrative proof of viral contamination, alongside clinical or pathologic proof of kidney injury, either by histopathology, viral culture or proof of viral replication by polymerase chain response (PCR). This is certifiably not a straightforward undertaking and has not been performed satisfactorily in a significant number of the case reports or partner investigations of kidney contribution during viral disorders. Albuminuria and erythrocyturia happen vaguely in numerous febrile illnesses and don't the only one build up glomerular injury. Viruria or incorporation bearing cells in the pee can be either a reason or an impact of glomerular injury, or may basically reflect glomerular catching during viremia. Some infections are commensal in the kidney and might be shed innocously. While polyoma infections (BK and JC infections) are known to contaminate rounded and, seldom, glomerular epithelial cells in the kidney, and to cause interstitial nephritis and, seldom, crescentic glomerulonephritis (GN) in relocated kidneys, there are no revealed instances of these infections tainting glomerular cells or causing glomerulopathy in local kidneys, even in immunosuppressed patients.

The study's purpose is to review the regional options of frequency and clinical course of GN in kids living within the Bukhara region of the Republic of Uzbekistan.

Materials and methods: 249 sick children with GN who received inpatient examination and treatment at the Bukhara regional children's multidisciplinary medical center were monitored. All patients were examined for General blood tests, urine tests, urine tests according to Nechiporenko and zimnitsky, biochemical tests and functional research methods.
Among the surveyed boys there were slightly more - 161 (64.6%) than girls - 88 (35.4%). The examined sick children were aged 1 year-18 years, including children under 5 years - 70 (28.1 %), 6-10 years - 92 (36.9%), 11-15 years - 64 (25.7%), 16-18 years - 23 (9.3%).

Diag. 1

For a comparative study of the influence of risk factors patients were divided into 2 groups:

1-group: 138 (55.5%) sick children with virus-associated GN;

2-group: 111 (44.5%) sick children with GN without viral association.

The data of the official medical statistics of the regional Health Department of the Bukhara region for 2017-2019 were studied retrospectively.

The assessment of risk factors for the development of GN was calculated by the "case-control" type. The value of the odds ratio (or) was evaluated as follows: if the OR exceeds 1, it means that the chances of detecting a risk factor are greater in the group with the presence of an outcome and the factor has a direct relationship with the probability of an outcome. An OR with a value less than 1 indicates that the chances of detecting a risk factor are greater in the second group and the factor has an inverse relationship with the probability of an outcome [8].

Discussion: The results of a retrospective study of knowledge for three years showed that 43293 (76%) kids out of the full variety of youngsters were admitted to the hospital with diseases of the genitourinary apparatus (UTD) throughout the studied amount. The incidence of GN for the studied amount is seventeen.3%. It had been found that the frequency of hospitalization of youngsters with tract diseases is on the average seven.61% of the full children's hospitalization.

Analysis of morbidity and hospitalization at the place of residence showed that kids living in rural areas were a lot of usually hospitalized - 204 (81.9%). At a similar time, the frequency of hospitalization of youngsters with UTD within the amount 2017-2019 raised nearly one.6 times.
The nosological structure showed a predominance of chronic GN in kids. Thus, our studies revealed that: CGN - 137 (55.0%), AGN-75 (30.2%), and first syndrome (NS)-37 (14.8%)

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<th>Nosological structure of GN</th>
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<tr>
<td>Chronic GN</td>
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<td>137</td>
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The examination discovered comorbid pathology in kids of this class. CGN frequently occurred by following conditions iron deficiency anemia I-IIdegree-88 (64.3%), recurrent respiratory infectious - 122 (89.0%), and delayed physical development, 69 (50.4%), oral cavity disorders - 68 (49.6%), skin redness –18 (13.2%), and edema - 78 (56.9%), herpes infection - 55 (40.2%), diarrhea-28 (20.4%), convulsive syndrome-1 (0.73%), haemorragicvasculitis- 1 (0.73%).

In AGN, the frequency of comorbid pathology was as follows:: recurrent respiratory viral infections (RRVI)- forty six (61.4%), iron deficiency anemia I-IIdegree-- twenty one (28.0%), allergic reaction - two (2.7%), class Insecta allergic - one (1.4%), haemorragic vasculitis-1 (1.4%), pox -1 (1.4%), diarrhea-1 (1.4%), measles-1 (1.4%).

Primary NS happens in comorbidity with RRVI-23 (62.2%), iron deficiency anemia of I-IIdegree-5 (13.5%), undetermined-6 (16.2%), herpes infection-1 (2.7%), food allergy-1 (2.7%), dental caries-1 (2.7%)
for the development of non-associated GN virus in children are allergic diseases in the family, past reactions to vaccination, diarrhea and convulsive syndrome in the child (P<0.01).

Consequently, the establishment of important risk factors for the progress of GN in children, particularly in early childhood, is of theoretical relevance. By improving preventive measures at the stages of prenatal management of pregnancy and childbirth, it is possible to achieve a reduction in renal pathology, in particular when GN is associated with the virus in children.

**Literature:**


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