



Assessment Of Children With Nephrotic Syndrome At Pediatric Hospitals

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Abstract:

Nephrotic syndrome is a common kidney disorder in children, characterized by the presence of protein in the urine, low blood protein levels, high cholesterol levels, and swelling. Pediatric hospitals play a crucial role in the assessment and management of children with nephrotic syndrome. This essay aims to explore the assessment of children with nephrotic syndrome at pediatric hospitals, focusing on various aspects such as diagnostic procedures, treatment options, and long-term care. The method used in this study involves a review of literature from reputable sources, including journals, articles, and guidelines. The results highlight the importance of early diagnosis, multidisciplinary care, and tailored treatment plans for children with nephrotic syndrome. The discussion emphasizes the need for a holistic approach to managing nephrotic syndrome in children, considering both medical and psychosocial factors. In conclusion, the assessment of children with nephrotic syndrome at pediatric hospitals requires a comprehensive and individualized approach to ensure optimal outcomes and quality of life for these young patients.

Keywords: nephrotic syndrome, children, pediatric hospitals, assessment, treatment

Introduction:

Nephrotic syndrome is a common renal disorder in children, characterized by the presence of heavy proteinuria, hypoalbuminemia, hyperlipidemia, and edema. It is most commonly seen in the age group of 2-6 years and is considered one of the most common glomerular diseases in childhood. Children with nephrotic syndrome often require specialized care and management, which is typically provided in pediatric hospitals. The assessment of children with nephrotic syndrome at pediatric hospitals involves a comprehensive evaluation to determine the underlying cause, severity of the disease, and appropriate treatment plan.

Children with nephrotic syndrome are commonly treated at pediatric hospitals. Nephrotic syndrome is a kidney disorder characterized by the presence of protein in the urine, low levels of protein in the blood, high cholesterol levels, and edema (swelling) in various parts of the body. It is more prevalent in children than in adults.

Pediatric hospitals are well-equipped to provide comprehensive care for children with nephrotic syndrome. Here are some key aspects of care that these hospitals typically focus on:

Diagnosis and Evaluation: Pediatric hospitals have specialized pediatric nephrologists who are experienced in diagnosing and evaluating nephrotic syndrome in children. They conduct thorough physical examinations, review medical histories, and order appropriate laboratory tests to confirm the diagnosis and determine the underlying cause of the condition.

Treatment Planning: Pediatric nephrologists collaborate with a multidisciplinary team to develop individualized treatment plans for children with nephrotic syndrome. The treatment approach may involve medications, dietary modifications, and fluid management to control symptoms, reduce proteinuria, and prevent complications.

Medication Management: Pediatric hospitals have pharmacists who specialize in pediatric medication management. These pharmacists work closely with the healthcare team to ensure that children with nephrotic syndrome receive the appropriate medications in the correct dosage, considering their age, weight, and specific needs. Common medications used in treating nephrotic syndrome include corticosteroids, immunosuppressants, and diuretics.

Nutritional Support: Pediatric dietitians play a crucial role in managing the dietary aspects of nephrotic syndrome. They provide guidance on appropriate nutrient intake, especially regarding protein and sodium restrictions. They work closely with families to develop meal plans that meet the child's nutritional needs while considering the restrictions imposed by the condition.

Education and Support: Pediatric hospitals provide educational resources and support services for children and their families. This includes information on the condition, its management, and potential complications. Social workers and child life specialists may also be available to provide emotional support and help navigate the challenges associated with living with nephrotic syndrome.

Long-term Monitoring: Children with nephrotic syndrome require long-term follow-up to monitor their kidney function, proteinuria levels, and overall health. Pediatric hospitals offer regular check-ups and ongoing care to ensure that the condition is managed effectively and any potential complications are promptly addressed.

Method:

To explore the assessment of children with nephrotic syndrome at pediatric hospitals, a thorough review of literature was conducted. A search of reputable sources such as journals, articles, and guidelines related to pediatric nephrology was conducted to gather relevant information for this study. The literature review focused on diagnostic procedures, treatment options, and long-term management strategies for children with nephrotic syndrome.

Results:

The assessment of children with nephrotic syndrome at pediatric hospitals involves a multidisciplinary approach, including pediatric nephrologists, pediatricians, nurses, dietitians, and social workers. Diagnostic procedures often include urine tests, blood tests, imaging studies, and kidney biopsies to determine the underlying cause of nephrotic syndrome. Treatment options may include corticosteroids, immunosuppressive agents, diuretics, and dietary adjustments. Long-term management of children with nephrotic syndrome requires ongoing monitoring of renal function, blood pressure, proteinuria, and lipid levels to prevent complications and ensure optimal outcomes.

Discussion:

The assessment of children with nephrotic syndrome at pediatric hospitals requires a holistic approach that considers both medical and psychosocial factors. In addition to medical treatment, children with nephrotic syndrome may require psychosocial support, nutritional counseling, and educational resources to cope with the challenges of managing a chronic illness. Pediatric hospitals play a crucial role in providing comprehensive care for children with nephrotic syndrome, ensuring that they receive the necessary support and resources to manage their condition effectively.

Conclusion:

In conclusion, the assessment of children with nephrotic syndrome at pediatric hospitals requires a tailored and multidisciplinary approach to ensure optimal outcomes and quality of life for these young patients. Early diagnosis, personalized treatment plans, and ongoing monitoring are essential components of managing nephrotic syndrome in children. By providing comprehensive care and support, pediatric hospitals can help children with nephrotic syndrome lead healthy and fulfilling lives despite their medical condition.

References:

1. Trautmann A, Bodria M, Ozaltin F, et al. Spectrum of steroid-resistant and congenital nephrotic syndrome in children: the PodoNet registry cohort. *Clin J Am Soc Nephrol*. 2015;10(4):592-600.
2. Koshy S, Mathew A, Kurien AA, Karthikeyan V, Babu M, Vasudevan A. Clinico-etiological spectrum of nephrotic syndrome in children. *Saudi J Kidney Dis Transpl*. 2014;25(2):359-362.
3. Gulati S, Sengupta D, Sharma RK, et al. Steroid Resistant Nephrotic Syndrome: Role of Histopathology. *Indian J Pediatr*. 2014;81(2):183-186.
4. Ingulli E, Tejani A. Racial differences in the incidence and renal outcome of idiopathic focal segmental glomerulosclerosis in children. *Pediatr Nephrol*. 1991;5(4):393-397.
5. Mekahli D, Liutkus A, Ranchin B, et al. Long-term outcome of idiopathic steroid-resistant nephrotic syndrome: a multicenter study. *Pediatr Nephrol*. 2009;24(8):1525-1532.
6. Gipson DS, Massengill SF, Yao L, et al. Management of childhood onset nephrotic syndrome. *Pediatrics*. 2009;124(2):747-757.
7. Noone DG, Iijima K, Parekh R. Idiopathic nephrotic syndrome in children. *Lancet*. 2018;392(10141):61-74.
8. Garin EH, Muñoz A, Bouissou F, Valderrabano F. Nephrotic syndrome, idiopathic. Clinical practice guidelines for the clinical management of nephrotic syndrome in children. *Acta Paediatr*. 2015;104(5):544-553.
9. Schnaper HW. Nephrotic syndrome: novel targets for therapy in children. *Paediatr Drugs*. 2007;9(1):9-17.
10. Hogg RJ. Update on Nephrotic Syndrome in Children. *Curr Opin Pediatr*. 2020;32(2):279-284.