THE KOREAN SOCIETY OF NEPHROLOGY
APCN & KSN 2024
June 13(Thu) - 16(Sun), 2024 Coex, Seoul, Korea
APSN
Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

Abstract Submission No.: A-0994

Strategic Insights: Early Diagnoses, Genetic Pathways, and Personalized Medicine in Pediatric CKD - Children's New Clinic Perspective

Ketevan Kvatadze, Ekaterine Gaprindashvili
Department of Pediatrics-Nephrology, Children New Clinic, Georgia

Case Study : At the Children's New Clinic in Tbilisi, Georgia, our study focused on pediatric CKD patients aged 2–14 years, diagnosed at stage 1 or higher. Data from 22 children included demographics, clinical status, lab results, surgical interventions, kidney function, and outcomes. Median age at diagnosis was 10 years, with a 1.8:1 male-to-female ratio. Only 5% presented with stage 1 CKD, and adverse outcomes were 4.5 times more likely in stages 3–5. CAKUT was the primary cause in 49%, linked with glomerular disease and poorer outcomes. Morbidity and mortality correlated with proteinuria, hypertension, anemia, and bone issues. Despite unclear CKD epidemiology in Georgia, early diagnosis showed improved outcomes, emphasizing the significance of timely intervention. A notable inclusion involved patients aged 2–14 years, 3 of them preparing for transplantation, highlighting the urgency in managing pediatric CKD. Shifting to genetic insights, two patients underwent testing, revealing CDH7 and PAX2 as pathological genes. CDH7, associated with cell adhesion and development, and PAX2, crucial in kidney and urinary tract development, offer precision in understanding CKD's molecular basis. Identification of these genes carries clinical implications, allowing targeted approaches in diagnosis and treatment. Integrating genetic testing into the pediatric CKD diagnostic toolkit provides avenues for personalized therapeutic strategies, deepening comprehension of disease mechanisms, and contributing to advancements in genetic counseling and potential preventive measures. Uncovering the genetic landscape of CKD, the identification of CDH7 and PAX2 marks a significant stride toward personalized medicine, emphasizing the critical role of genetic insights in enhancing patient care. Further research into genetic aspects lays the groundwork for more effective interventions, underscoring the need for ongoing exploration in the field of pediatric CKD. This study, now encompassing genetic insights, stands as a crucial contribution to nephrology, urging heightened awareness and strategic interventions to improve pediatric CKD prognosis.