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Kidney Genetics in Adult

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Kidney disease has emerged as a significant financial burden within the Taiwan health system, with the expenditure continually rising. Notably, the demand for dialysis is on the upswing, indicating a growing population in need of such interventions. While hereditary diseases have garnered attention in the pediatric domain, it is imperative to recognize that genetic conditions are prevalent across age groups. Approximately 10% of the chronic kidney disease (CKD) population is attributed to hereditary diseases, necessitating a broad consideration of these conditions in daily clinical practice beyond the widely acknowledged Autosomal Dominant Polycystic Kidney Disease (ADPKD).

In the Taiwanese context, Autosomal Dominant Tubulointerstitial Kidney Disease (ADTKD) also holds significance, particularly in the realm of young CKD patients with a familial history. It is crucial to extend our focus beyond ADPKD and acknowledge the presence of ADTKD, emphasizing its consideration in the assessment of this specific CKD demographic. Moreover, although proteinuria is commonly encountered in adults, it is essential to recognize that a subset of proteinuria patients may possess a familial history with potential identifiable genetic causes.

The integration of genetics into clinical nephrology practice yields numerous benefits. It facilitates the prediction of kidney function progression, guides the selection of appropriate treatments, assesses the suitability of kidney transplantation, enables family consultations, and provides clarity and explanations for patients exhibiting resistance to standard treatments. This holistic approach not only enhances patient care but also contributes to a more informed and personalized management of kidney diseases in the Taiwanese healthcare landscape.