Can We Prevent Chronic Renal Failure in Children?

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The management of children with chronic renal failure is primarily the responsibility of paediatric nephrologists, but doctors at all levels of care can help to prevent its onset and delay its progression to endstage renal failure. In Hong Kong, chronic renal failure in children are caused by three main groups of diseases: chronic pyelonephritis (36%), chronic glomerulonephritis (26%), heredofamilial diseases (16%). The first group involved patients with complex congenital urological anomalies with renal dysplasia and superimposed pyelonephritis. The second group included focal segmental glomerulosclerosis, IgA nephropathy, membranoproliferative or membranous nephropathy, ANCA-associated crescentic GN or lupus nephritis. The third group included Alport syndrome, polycystic kidneys, and juvenile nephronophthisis. Universal urine and ultrasound screening have been practised in Japan, Taiwan and Korea. An alternative strategy is early detection/treatment of specific treatable diseases, and institution of non-specific renal protective management for those with progressive renal insufficiency. For the chronic pyelonephritis group, antenatal ultrasound abnormalities and infantile febrile UTI offer an opportunity to treat obstructive uropathy by surgery, VUR by antibiotic prophylaxis +/- circumcision +/- treatment of voiding dysfunction +/- antireflux surgery. Patients in the chronic GN group present with atypical or steroid resistant nephrotic syndrome, or proteinuria/haematuria/hypertension/renal impairment. Timely referral and renal biopsy allow early diagnosis and immuno-suppressive treatment. Even diseases with no specific treatment, control of hypertension, hyperphosphataemia, proteinuria and hypercholesterolaemia may retard the progression to end-stage renal disease. Such strategy calls for cooperation of all paediatricians, to identify high risk patients and refer early at the primary care level, proper workup and diagnosis at the secondary level, specific or nonspecific renoprotective treatment at the tertiary level. (HK J Paediatr (new series) 2004;9:59-64)

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