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IN BRIEF

PAEDIATRICS

Treatment of steroid-resistant nephrotic syndrome

A new study has reported that tacrolimus plus prednisolone is more effective than intravenous cyclophosphamide plus prednisolone for the treatment of steroid-resistant nephrotic syndrome. In the randomized, controlled trial, 131 children received prednisolone plus either tacrolimus for 12 months or 6-monthly infusions of cyclophosphamide. More patients in the tacrolimus group achieved the primary outcome of complete or partial remission.

Original article Gulati, A. *et al.* Treatment with tacrolimus and prednisolone is preferable to intravenous cyclophosphamide as the initial therapy for children with steroid-resistant nephrotic syndrome. *Kidney Int.* doi:10.1038/ki.2012.238

GLOMERULAR DISEASE

Kidney injury in crescentic glomerulonephritis

A study using a mouse model of crescentic glomerulonephritis has demonstrated a potential role for $\gamma\delta$ T cells in the pathogenesis of this disease. Turner *et al.* found that $\gamma\delta$ T cells are a major source of IL-17A in the kidney in the early stages of disease. The production of IL-17A by $\gamma\delta$ T cells was induced by IL-23; depletion of dendritic cells reduced IL-17A production by $\gamma\delta$ T cells. Depletion of $\gamma\delta$ T cells reduced neutrophil recruitment into the kidney and resulted in reduced kidney injury.

Original article Turner, J. E. *et al.* IL-17A production by renal $\gamma\delta$ T cells promotes kidney injury in crescentic GN. *J. Am. Soc. Nephrol.* doi:10.1681/ASN.2012010040

GENETICS

Genetics of kidney function

A meta-analysis of genome-wide association studies in east Asian populations has identified 17 loci newly associated with kidney function-related traits. The meta-analysis included 71,149 individuals from 18 studies that were conducted as part of the Asian Genetic Epidemiology Network. Okada *et al.* say that the 17 loci are associated with traits including concentrations of blood urea nitrogen, uric acid and serum creatinine and estimated glomerular filtration rate, and state that their findings provide new insights into the genetics of kidney function.

Original article Okada, Y. *et al.* Meta-analysis identifies multiple loci associated with kidney function-related traits in east Asian populations. *Nat. Genet.* doi:10.1038/ng.2352

BASIC RESEARCH

Endothelial glycocalyx disruption and proteinuria

Loss of the endothelial glycocalyx links albuminuria with vascular dysfunction and is a potential target for proteinuric kidney disease, say researchers. Using a rat model of albuminuric kidney disease, Salmon *et al.* found that loss of the endothelial glycocalyx occurred together with defects in microvascular permeability. In old rats, enzymatic disruption of the endothelial glycocalyx did not further change microvascular permeability, but adsorption of wheat germ agglutinin lectin onto the endothelial surface layer improved glomerular albumin permeability.

Original article Salmon, A. H. J. *et al.* Loss of the endothelial glycocalyx links albuminuria and vascular dysfunction. *J. Am. Soc. Nephrol.* doi:10.1681/ASN.2012010017