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IN BRIEF

IBD

Kidney disease in patients with IBD

IgA nephropathy is the most common kidney disease diagnosed in biopsy samples from patients with inflammatory bowel disease (IBD), according to new findings. In a retrospective case series of kidney biopsy samples from 83 patients with IBD, 24% of patients were diagnosed with IgA nephropathy, 19% with interstitial nephritis, 12% with arterionephrosclerosis, 8% with acute tubular injury, 7% with proliferative glomerulonephritis and 5% with minimal-change disease. Moreover, the diagnostic prevalence of IgA nephropathy was higher in the IBD kidney biopsy samples than in 33,630 non-IBD kidney biopsy samples obtained during the same time period (24% versus 8%, $P<0.001$).

Original article Ambruzs, J. M. *et al*. The histopathologic spectrum of kidney biopsies in patients with inflammatory bowel disease. *Clin. J. Am. Soc. Nephrol.* doi:10.2215/CJN.04660513

IMAGING

Podocyte motility and fate tracking

Researchers have developed a new serial multiphoton microscopy approach to investigate the motility of podocytes and parietal epithelial cells (PECs) *in vivo*. Using this technique to visualize glomeruli over several days, Hackl and colleagues showed simultaneous migration of multiple podocytes, PEC-to-podocyte migration, and the presence of nanotubules connecting PECs with podocytes, in mouse models of glomerular injury with fluorescent lineage tags.

Original article Hackl, M. J. *et al*. Tracking the fate of glomerular epithelial cells *in vivo* using serial multiphoton imaging in new mouse models with fluorescent lineage tags. *Nat. Med.* doi:10.1038/nm.3405

NEPHROTIC SYNDROME

ADCK4 mutations and CoQ10 in SRNS

Mutations in *ADCK4* can cause steroid-resistant nephrotic syndrome (SRNS) say researchers. Ashraf *et al*. identified *ADCK4* mutations in 15 patients with SRNS and showed that these mutations led to reductions in coenzyme Q10 (CoQ10) levels and mitochondrial respiratory enzyme activity. They also report that *ADCK4* interacts with members of the CoQ10 biosynthesis pathway in podocytes. As CoQ10 treatment resulted in partial remission of SRNS in a patient with a homozygous *ADCK4* mutation, the researchers suggest that such therapy might be effective in patients with SRNS and mutations in genes that have a role in CoQ10 biosynthesis.

Original article Ashraf, S. *et al*. *ADCK4* mutations promote steroid-resistant nephrotic syndrome through CoQ_{10} biosynthesis disruption. *J. Clin. Invest*. doi:10.1172/JCI69000

DIABETES

Vildagliptin—a novel treatment option for NODAT

New data suggest that vildagliptin is a safe and efficient therapy for new-onset diabetes after transplantation (NODAT). In this phase II, randomized, placebo-controlled trial, which included 33 kidney transplant recipients, vildagliptin therapy resulted in substantial improvements in levels of 2-h plasma glucose (derived using an oral glucose tolerance test) and HbA1c from baseline, at 3 months of follow-up.

Original article Haidinger, M. *et al*. Efficacy and safety of vildagliptin in new-onset diabetes after kidney transplantation—a randomized, double-blind, placebo-controlled trial. *Am. J. Transplant*. doi:10.1111/ajt.12518