

IN BRIEF

TRANSPLANTATION

Leflunomide might be useful in the treatment of pediatric BK virus allograft nephropathy (BKVAN), an infectious complication affecting about 5% of renal transplant recipients. Although this immunosuppressant has previously shown beneficial effects in adults, Araya *et al.* are the first to report its use in children and young adults. Leflunomide treatment in three patients with BKVAN (aged 9, 12 and 20 years) led to considerable decreases in BK viral loads—to undetectable levels in two patients—without adverse effects.

Original article Araya, C. E. *et al.* Leflunomide therapy for BK virus allograft nephropathy in pediatric and young adult kidney transplant recipients. *Pediatr. Transplant.* **14**, 145–150 (2010)

RISK FACTORS

Low-level environmental lead exposure might be associated with reduced kidney function among adolescents, say researchers in the US. In a study involving a representative sample of 769 healthy US adolescents aged 12–20 years, Fadrowski *et al.* found that individuals with blood lead levels in the highest quartile had significantly lower cystatin-C-estimated glomerular filtration rates than those with blood lead levels in the lowest quartile.

Original article Fadrowski, J. J. *et al.* Blood lead level and kidney function in US adolescents: the Third National Health and Nutrition Survey. *Arch. Intern. Med.* **170**, 75–82 (2010)

HYPERTENSION

The long-term inhibition of phosphodiesterase type 5 (PDE-5) might be a useful adjunctive therapy for the treatment of essential hypertension, according to a recent experimental study. Yaguas and co-workers found that the long-term inhibition of PDE-5 with sildenafil decreased renal oxidative stress, reduced macrophage accumulation, reversed endothelial dysfunction, and decreased blood pressure in spontaneously hypertensive rats, an experimental model of human essential hypertension.

Original article Yaguas, K. *et al.* Chronic sildenafil treatment corrects endothelial dysfunction and improves hypertension. *Am. J. Nephrol.* **31**, 283–291 (2010)

CHRONIC KIDNEY DISEASE

A recent study reports that vascular smooth muscle cells (VSMCs) undergo various adaptations in response to the dysregulated calcium and phosphate metabolism that occurs in chronic kidney disease. These adaptations—which include the release of vesicles—ultimately lead to calcification and apoptosis of VSMCs. The authors state that their findings may have important clinical implications as they indicate that transient hypercalcemic episodes might promote vascular calcification in patients on dialysis.

Original article Shroff, R. C. *et al.* Chronic mineral dysregulation promotes vascular smooth muscle cell adaptation and extracellular matrix calcification. *J. Am. Soc. Nephrol.* **21**, 103–112 (2010)