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IN BRIEF

REGENERATIVE MEDICINE

Expansion of nephron progenitor cells *in vitro*

An *in vitro* niche in which nephron progenitor cells (NPCs) isolated from mouse embryonic kidneys or human embryonic stem cells can be propagated has been developed by modulating *FGF*, *BMP*, and *WNT* signalling pathways. The technique allows for NPCs to be expanded up to one billion-fold and for the cells to be induced to form tubules that express nephron differentiation markers. The single cell cultures derived from cells within the NPC compartment exhibited phenotypic variability, and the developmental age of the NPCs did not correlate with propagation capacity.

Original article Brown, A. C. *et al.* A synthetic niche for nephron progenitor cells. *Dev. Cell* doi:10.1016/j.devcel.2015.06.021

CHRONIC KIDNEY DISEASE

ACR versus UAE

The KDIGO 2012 guidelines state that albuminuria should be assessed using the albumin–creatinine ratio (ACR) rather than by monitoring 24 h urinary albumin excretion (UAE). To assess the importance of misclassification when evaluating albuminuria by ACR in an early morning urine sample instead of 24 h UAE, Vart *et al.* examined 7,683 participants of the PREVEND and RENAAL studies for reclassification. Only 4.0% participants were reclassified to a higher and 7.9% to a lower albuminuria category when using ACR. Those who were reclassified to a higher ACR category had an increased risk of cardiovascular morbidity and mortality compared to those not reclassified.

Original article Vart, P. *et al.* Urine albumin-creatinine ratio versus albumin excretion for albuminuria staging: a prospective longitudinal cohort study. *Am. J. Kid. Dis.* doi:10.1053/j.ajkd.2015.05.025

NEPHROTOXICITY

Bicarbonate versus saline in contrast-induced AKI

A prospective, double-blind, randomized trial has assessed whether infusion of sodium bicarbonate is protective against contrast-induced acute kidney injury (CI-AKI). Solomon *et al.* compared the effects of high dose sodium bicarbonate with high dose sodium chloride in patients undergoing angiography with an estimated glomerular filtration rate (eGFR) <45 ml/min/1.73 m². No significant differences were found between the two groups in the incidence of CI-AKI, or a composite of death, dialysis, or sustained 6-month reduction in eGFR.

Original article Solomon, R. *et al.* Randomized trial of bicarbonate or saline study for the prevention of contrast-induced nephropathy in patients with CKD. *Clin. J. Am. Soc. Nephrol.* doi:10.2215/CJN.05370514

FABRY DISEASE

Effects of agalsidase-β shortage in Fabry disease

A shortage in agalsidase-β between 2009 and 2012 resulted in patients with Fabry disease either receiving reduced doses or switching to agalsidase-α. Lenders *et al.* found that patients who reduced doses or switched medications exhibited a decline in renal function compared to those who received the standard agalsidase-β treatment regimen. All patients, however, showed a stable clinical disease course.

Original article Lenders, M. *et al.* Patients with Fabry disease after enzyme replacement therapy dose reduction and switch-2-year follow-up. *J. Am. Soc. Nephrol.* doi:10.1681/ASN.2015030337