



Leading European Nephrology

PRESS INFORMATION

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Early initiation of RRT in critically ill patients with AKI saves lives

Acute kidney injury (AKI) is a syndrome that affects 13-18% of patients admitted to hospital and is particularly common in patients in the intensive care unit (ICU). The impact and prognosis vary considerably, depending on severity, acute and chronic comorbidities, and the timing of initiation of renal replacement therapy (RRT) also has an impact on the outcome. **Zarbock et al.** started a randomized study in which 231 critically ill patients with AKI and plasma neutrophil gelatinase-associated lipocalin > 150 ng/ml were randomized. In 112 patients, RRT was initiated early (KDIGO stage 2), 108 patients received RRT later (in stage 3). As the study shows, early initiation of RRT in these critically ill patients with AKI pays off: Early initiation of RRT significantly improved 90-day survival, and this approach significantly reduced the plasma levels of pro-inflammatory mediators associated with an improved survival and renal recovery. Furthermore, duration of RRT and length of hospital stay were significantly shorter in the early group as compared to the late group. However, early initiation of RRT had no significant effect on requirement of RRT after day 90, organ dysfunction, and length of intensive care stay.

Steroid Therapy in IgAN: Still open, if the benefits outweigh the risks

IgA nephritis (IgA nephropathy/IgAN) is the most common glomerulonephritis. Glomerulonephritis (GN) constitute the third most common defined cause of kidney failure in Europe, after diabetic and hypertensive nephropathy. Recent clinical guidelines recommend steroid therapy in patients with IgA nephropathy and persistent proteinuria but doubt has been cast on the value of this strategy recently. In the TESTING study, a randomized study by **Zhang et al.**, 262 patients with persistent proteinuria > 1g/day and estimated GFR 20–120 ml/min per 1.73m² were randomly assigned to receive 0.6-0.8 mg/kg/day of oral methylprednisolone (max 48 mg/day) weaning over 6–8 months, or matching placebo (after they had at least 3 months of supportive therapy including blood pressure control and renin-angiotensin system blockade). Time-averaged proteinuria after randomization was significantly reduced in the steroid treated arm ($p < 0.001$), and the primary composite renal outcome occurred in 8 participants (5.9 %) in the methylprednisolone group and in 20 participants (15.9 %) in the placebo group ($p = 0.019$). This benefit had its price, however, after a median follow-up of 1.5 years, serious adverse events occurred in 20 (14.7%) vs. 4 (3.2%) participants in the steroid and placebo groups, respectively ($p = 0.001$). The interim results suggest a likely renal benefit based on a modest number of events to date, and the ongoing long-term follow-up will help to further define the balance of risks and benefits.

Lipid apheresis only in patients without prevalent coronary artery disease?

Epidemiological studies suggest an association between Lp(a) levels and cardiovascular risk – which is why said marker has been addressed as a therapeutic target in all patients.

März et al. analyzed the association between Lp(a) and CAD severity as well as long-term outcomes (median follow-up 9.9 years) in 3,313 participants undergoing coronary angiography in the Ludwigshafen Risk and Cardiovascular Health (LURIC) study. Analysis of the results provides novel epidemiological and genetic evidence of Lp(a) being a risk factor for the development of CAD, but also shows that Lp(a) loses its association with outcomes in patients with prevalent CAD. These findings are backed up by replication in two similar, but independent cohorts (KAROLA and HCSS). Lipid apheresis is currently the only available approach for lowering Lp(a). The current data, however, do not provide support for this approach in CAD patients. Interventions to lower Lp(a) may be more successful in high risk patients before CAD becomes clinically manifest.

All-oral, ribavirin-free regimen successful in hepatitis-C patients with chronic kidney disease

Chronic infection with the hepatitis-C virus (HCV) can be both a cause and a potential complication of chronic kidney disease. One major problem is that only limited options are available for treating HCV infection in patients with advanced kidney disease. Medications such as Sofosbuvir can only be used, if the estimated glomerular filtration rate (eGFR) is >30 ml/min/1.73 m², because it is mainly eliminated renally. Ribavirin should also be used with caution in cases of severe renal insufficiency. An all-oral ribavirin-free regime has now been tested in a study by **Bruchfeld et al.**, in which 224 CKD patients (in stage 4 or 5) were randomized and received either elbasvir/grazoprevir (EBR/GZR) or a placebo. Placebo patients (deferred treatment group, DTG; N=113) received EBR/GZR after placebo therapy. The study showed that administration of EBR/GZR for 12 weeks was highly effective, with a low rate of adverse events in patients with CKD and HCV G1 infection. Even patients with HCV genotype 1a (GT-1a) and baseline resistance-associated variants (RAVs) had only a modest decrease in efficacy.

Pre-emptive marsupialized catheter can increase PD prevalence in elderly dialysis patients

The percentage of patients who decide on peritoneal dialysis (PD) is relatively small – less than 10% in most European countries. PD is equally valuable as a form of dialysis and in terms of outcomes is not inferior to in-center hemodialysis. On the contrary – Due to its gentle and continuous removal of fluids, PD imposes less stress on the circulation system, for which reason it may also be more appropriate for many elderly patients, who frequently have cardiovascular problems on HD. The percentage of PD patients in this group is very low, nevertheless. The study by **Riva et al.** showed that pre-emptive insertion of a PD catheter, marsupialized in this case, can significantly increase PD prevalence in this PD population at a GFR of 15–10 ml/min/1.73 m² (from 8% to 19%).