

# Kidney diseases in China and Europe

In a joint symposium on Monday, the Chinese Society of Nephrology and the ERA-EDTA will discuss renal care topics.

The ERA-EDTA congress is delighted to announce a joint symposium with the Chinese Society of Nephrology, which offers a platform to discuss the epidemiological and clinical challenges of renal care in China and Europe. Here, Professor Zhi-Hong Liu, President of the Chinese Society of Nephrology (CSN) and scientists of the ERA-EDTA-Registry in Amsterdam provide an outlook for the data they are going to present today.

## IgA nephropathy – the most common kidney disease in China

IgA nephropathy accounts for 45 % of primary glomerular diseases in China, according to CSN President Professor Zhi-Hong Liu, 36 % of patients will progress to end-stage renal disease (ESRD) within 20 years. Unfavourable renal outcome is indicated by five independent predictors in patients with IgAN, including proteinuria, hypertension, impaired renal function, hypoproteinaemia and hyperuricaemia. “Sustained proteinuria during the follow-up (time-average proteinuria, TA-P) was the strongest predictor of renal failure,” Zhi-Hong Liu explains. “Compared with TA-P <0.5 g/day, patients with TA-P 0.5–0.1.0 g/day were associated with a 9.1-fold increased risk of a worse outcome (ESRD or 50 % reduction in eGFR), and patients with TA-P >1.0 g/day were associated with a 46.5-fold increased risk (P < 0.001).” Zhi-Hong Liu and her team at the Jinling Hospital of Nanjing University School of Medicine performed a validation study of the Oxford classification in a multicentre cohort of 1026 patients with IgAN from China. Tubular atrophy/interstitial fibrosis (T) was found to be the most powerful lesion for predicting IgAN independent of clinical features, while mesangial hypercellularity (M) and segmental glomerulosclerosis (S) had only weak influence on renal survival. Repeated renal biopsy revealed that endocapillary hypercellularity (E), crescents (C) and glomerulus necrosis (N) were reversible in most of patients with IgAN after treatment. Persistence and emergence of cres-

cents or glomerular necrosis at repeat biopsy indicate an unfavourable renal outcome during the follow-up.

Based on these findings, a multicentre randomised controlled clinical trial was conducted to see the effect of immunosuppressive therapy on proliferative IgAN (patients with E, C or N lesions). 140 biopsy-proven IgAN patients were recruited in this study, mycophenolate mofetil (MMF) treatment was applied at 1.5g/d for six months, using prednisone (0.6mg/kg/d) as a control. Remission was observed in 84 % of the patients in the MMF group and 78% in the prednisone group. During immunosuppression therapy, the incidence rates of Cushing’s syndrome (56 % vs.



CSN President Zhi-Hong Liu  
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Christoph Wanner, Chairman of the ERA-EDTA Registry  
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ERA-EDTA Registry researcher Katharina Brueck  
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22 %) were significantly higher in the prednisone group; moreover, newly diagnosed diabetes mellitus (17 % vs. 2 %) was also significantly higher in the prednisone group. These data indicate that IgAN patients with proliferative lesions benefit from immunosuppressive therapy based on renal histology. Mycophenolate mofetil treatment has fewer side effects compared to prednisone.

## The burden of chronic kidney disease in Europe

The wide variation in definitions for prevalence and progression of chronic kidney disease (CKD) complicates attempts to compare the burden of chronic kidney disease between European countries. Moreover, standardised definitions for a useful comparison are lacking, according to Dr. Katharina Brueck, Dr. Vianda S. Stel and Professor Christoph Wanner of the ERA-EDTA Registry in Amsterdam. The scientists have been working on a study to compare the incidence, prevalence and progres-

sion of chronic kidney disease of all stages in subjects not on renal replacement therapy across European countries. Their study combines work derived from two European projects: the SysKID projects ([www.syskid.eu](http://www.syskid.eu)) focuses on CKD stage 1, 2 and 3, while the QUEST ([www.quest.com](http://www.quest.com)) project is dealing with on CKD stage 4.

“First we started with a literature search to find all published studies with data on chronic kidney disease in Europe,” explains Dr. Brueck. “In addition, we asked all representatives of the national and regional renal registries on renal replacement therapy in Europe as well as prominent nephrologists in each European country for unpublished studies on

tax in their preferred statistical programme and asked collaborators to e-mail us the results from the syntax. Using the received data, we calculated the unadjusted CKD prevalence and the age- and sex-standardised prevalence per country,” says Brueck. The preliminary results on the prevalence of chronic kidney disease in Europe will be presented at the current congress. After this congress, Brueck will contact study representatives and ask them to provide the progression of chronic kidney disease using the standardised definitions.

## S29: Joint Symposium of the CSN and the ERA-EDTA

- Epidemiology of CKD and dialysis registry in China  
Chang Lin Mei, China

- Epidemiology of CKD in Europe  
Christoph Wanner, Würzburg, Germany

- IgA Nephropathy in China  
Zhi Hong Liu, Nanjing, China

- IgA Nephropathy in Europe  
Rosanna Coppo, Turin, Italy

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