More than just ‘kidney lab values’: renal parameters are strong indicators of cardiovascular health

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If the prevalence of the individual stages of chronic kidney disease (CKD) is subjected to closer analysis, it is found that about 10% of the population is affected by some kind of kidney disease. In contrast, the percentage of patients in Stage 5 CKD needing renal replacement therapy (dialysis/transplantation) is much lower; dialysis patients represent only 1 to 2% of the CKD population.

This sounds like good news, but is, in fact, a rather sad one: namely, that many CKD patients die before they even reach the stage in which dialysis is necessary. Dialysis patients are ‘survivors’, so to speak, because mortality, especially cardiovascular mortality is very high in CKD patients. Although the two-year survival of patients starting renal replacement therapy has slightly increased according to the latest analysis of the ERA-EDTA Registry [1], the prognosis of CKD patients is still extremely poor. Due to the fact that patients progressing towards renal replacement therapy do not die of their kidney disease, but very often of other, mainly cardiovascular diseases, the extent to which renal parameters are valuable as predictors of cardiovascular disease have lately been given some thoughts.

A study [2] presented at the ERA-EDTA Congress in London last month showed that eGFR and albuminuria independently improved the prediction of incident cardiovascular events (especially of cardiovascular mortality and heart failure) beyond traditional risk factors, such as lipid profile or even blood pressure. The study has now been discussed in EurActiv [3], the leading online media on EU affairs, although the message itself is not new: A few years ago a systematic analysis [4], which included more than 1.2 million patients, already showed that cardiovascular mortality can be estimated well by using these two simple kidney function tests.

“There is a link between kidney and heart disease”, explains Prof. Andrzej Więcek, President of the European Renal Association - European Dialysis and Transplantation Association (ERA-EDTA) – and according to him, the renal tests (eGFR and albuminuria) are far more than just ‘kidney lab values’.
“The two `kidney tests´ can effectively and cost-efficiently detect cardiovascular risk patients even long before a kidney disease is clinically manifested. If these tests were routinely performed on all patients, it would be possible not only to discover some undetected CKD cases at an early stage, but also to stratify people with a high cardiovascular mortality risk and to treat them. CKD is a cardiovascular risk equivalent and it is easy and relatively cheap to measure – so why not use it?”

ERA-EDTA postulates that the two renal parameters should be widely used and be included in risk calculations for determining the state of a patient’s health. “We want to sensitize the policymakers to the high potential of CKD screening. They have to understand that it provides a double benefit – in terms of early CKD detection and slowing disease progression as well as in terms of lowering the high cardiovascular morbidity and mortality in the general population. That the study of Matsushita et al. [2] was discussed in EurActiv [3], an online journal on EU issues, is therefore very promising”.


About ERA-EDTA

With more than 7,000 members, the ERA-EDTA (“European Renal Association – European Dialysis and Transplant Association”) is one of the biggest nephrology associations worldwide and one of the most important and prestigious European Medical Associations. It supports basic and clinical research in the fields of clinical nephrology, dialysis, renal transplantation and related subjects. The ERA-EDTA supports a number of studies as well as research groups and has founded a special "Fellowship Programme" for young investigators as well as grant programmes. In order to involve young nephrologists in all activities of the ERA-EDTA the Council decided to create a Young Nephrologists’ Platform (YNP). Besides, it has established various research networks and different working groups to promote the collaboration of nephrologists with other medical disciplines (e.g. cardiology, immunology). Furthermore, a "European Renal Best Practice" (ERBP) advisory board has been established by the ERA-EDTA to draw up and publish guidelines and position statements. Another important goal of the ERA-EDTA is education: several series of CME-courses as well as the annual congress offer an attractive scientific programme to cover the need of continuous medical education for doctors working in the fields of nephrology, dialysis and transplantation. The association’s journals, NDT (Nephrology, Dialysis, Transplantation) and ckj (Clinical Kidney Journal), are currently the leading nephrology journals in Europe. The ERA-EDTA Registry is a large epidemiologic database comparing countries by assessing nephrology practice throughout Europe. Finally, ERA-EDTA is member of the European Kidney Health Alliance (EKHA), a consortium of renal societies that actively interacts with the European Parliament. For more information please visit www.era-edta.org