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Very low-protein diet can delay the need for dialysis in patients with chronic kidney disease (CKD)

The European Renal Nutrition working group of the European Renal Association – European Dialysis and Transplant Association (ERA-EDTA) has published a commentary [1] on the advantages of a very low-protein diet (0.3 – 0.4 grams per kilogram bodyweight) in CKD patients. According to the paper, such a diet has many benefits, including lowering blood pressure, serum phosphate and albuminuria. However, the most crucial point is that the diet can postpone the need for dialysis for about one year! The authors therefore recommend a very low-protein diet supplemented with ketoanalogues for selected CKD patients, starting from moderate CKD.

“We have to start the nutritional treatment early in CKD and implement a low-protein diet, or even better, a very low-protein diet supplemented with ketoanalogues, in CKD patients right from the beginning, which means in patients whose glomerular filtration rate has dropped below 60 ml/min/ 1.73 m²”, explains Professor Denis Fouque, president of the European Renal Nutrition Working Group. “The very low protein diet is basically a vegetarian diet supplemented with ketoanalogues, which have the capacity to lower blood urea concentration”. According to the expert and his three colleagues, Professor Vincenzo Bellizzi, Renal Dietitian Patrizia Calella and Associate Professor Juan Jesus Carrero, this diet has numerous beneficial effects:

- A very low-protein diet contains less phosphate; as a consequence, the phosphate burden is markedly lower and serum phosphate levels are reduced.
- It reduces proteinuria: The lower the dietary protein intake in CKD, the greater the proteinuria-reducing effect.
- It induces a marked and sustained decrease in blood pressure in advanced CKD patients with uncontrolled hypertension.
- In moderate to advanced CKD, it improves metabolic control and reduces the magnitude of the major clinical signs and symptoms of uremia, thus allowing the patient to delay the initiation of dialysis and reach this critical phase of the disease with fewer cardiovascular complications. It has been shown that the diet postpones the initiation of dialysis for a median time of one year.

The diet is safe, but is not suitable for all patients. It is contraindicated for malnourished patients, who often suffer from the 'protein-energy wasting syndrome'. "We recommend a very low-protein diet supplemented with ketoanalogues only for well-nourished, low-comorbidity patients", explains Professor Bellizzi, first author of the recently published paper [1]. "In these patients it is highly effective, at least when patients adhere to the diet."

[1] <https://www.sciencedirect.com/science/article/pii/S2095882X18300021?via%3Dihub>

About ERA-EDTA

With more than 7,500 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. It also 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 its activities, ERA-EDTA has created the "Young Nephrologists' Platform" (YNP), a very active committee whose board includes members who are 40 years old or younger. In addition, it has established various 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 was established by the ERA-EDTA to draw up and publish guidelines and position statements. Another important goal of the ERA-EDTA is education: The series of CME courses combined with the annual congress offer an attractive scientific programme to cover the need for 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; furthermore NDT-Educational is the online educational journal of the society, with free access for all users, as well as being a very important and useful feature of the NDT-Educational "Literature Review". The ERA-EDTA Registry is a large epidemiologic database comparing countries by assessing nephrology practices throughout Europe. ENP, the European Nephrology Portal, is the latest new initiative of ERA-EDTA, where all those interested in the activities of the Society can find everything that is happening, all in one place. Finally, ERA-EDTA is a member of the European Kidney Health Alliance (EKHA), a consortium of patients, nurses and foundations relating to renal issues that actively interacts with the European Parliament. For more information, please visit www.era-edta.org