

Myth and Secrets of Low Protein Diet in CKD

Chih-Hsiang Chang, MD

Division of Nephrology, Chang-Gung Memorial Hospital Linkou Medical Center, Taiwan

Chronic kidney disease (CKD) is a risk factor for cardiovascular disease (CVD) and all-cause mortality. Once CKD progresses to end-stage kidney disease (ESKD), the patient will have a lower quality of life and will suffer from huge economic burdens. A high-protein diet is known to increase the rate of renal sclerosis and result in kidney damage. Numerous studies have investigated whether lowering protein intake can attenuate the progression of CKD, but these studies have not yielded a definitive conclusion. Although the Cochrane Database Systematic Review provided evidence that a low-protein diet (LPD) has positive effects on nondiabetic CKD patient, LPDs are still underemployed, and information regarding their patient adherence, efficacy, and safety is still unclear. Meanwhile, the effect on patients with DM was still under debate. However, implementing an LPD with keto acid analogue (LPD-KA) supplement therapy in CKD has two mechanisms: first, kidney load is lowered because of the reduction in nitrogen; second, the KA supplement can help patients with CKD to maintain a favorable nutritional status. In 2016, Garneata et al. successfully postponed dialysis in nondiabetic patients on a vegetarian VLPD with a KA supplement (VLPD-KA). However, maintaining compliance with a vegetarian VLPD is difficult in clinical practice, especially in Asia, where people use rice as the staple food. In addition, protein intake is not the only factor that affects CKD progression; rather, the underlying kidney disease also contributes to disease progression. Therefore, this session is going to discuss the secrets and myth of the LPD and KA supplement and how to effectively use this tool in clinic.