특별강연 I

Prevention and Treatment of Malnutrition in ESRD Patients

Dae Suk Han

Department of Internal Medicine, Yonsei University College of Medicine

Malnutrition is common in ESRD patients with a prevalence ranging from 20% to 70% and is a powerful predictor of morbidity and mortality. Poor dietary nutrient intake which is mostly caused by anorexia, metabolic and hormonal derangements, superimposed comorbid conditions, inadequate dialysis, and catabolic effects of dialysis per se are implicated in the development of uremic malnutrition. Although to date, no consensus has been reached concerning its prevention or treatment, physicians should be aware of its significance and provide adequate management to maintain optimal nutrition in ESRD patients. To prevent malnutrition, multidisciplinary approaches should be made including regular monitoring of nutritional status, delivering adequate food intake, maintenance of adequate dialysis dose, correction of acidemia, and aggressive treatment of catabolic illness, etc. For the assessment of nutritional status, K-DOQI guideline recommends that routine measurements should be performed periodically in all patients; predialysis or stabilized serum albumin, % of usual postdialysis (HD) or post-drain body weight (PD), % of standard body weight, subjective global assessment, dietary interview and nPNA. Dietary counseling should be a part of treatment to provide adequate calorie and protein intake. When food intake is not adequate, some specialized oral or parenteral formula can be supplemented. Oral appetite stimulant is often effective as well to improve anorexia. Despite the uncertain role of dialysis adequacy on nutrition improvement, adequate dialysis dose should be delivered in maintenance dialysis patients. Metabolic acidosis should be corrected due to acidosis-induced muscle protein breakdown. In addition, some specific therapeutic interventions can be considered in malnourished patients. Growth hormone and androgenic anabolic steroids were effective to improve nutritional markers and to increase muscle mass in some small group studies. Administration of ghrelin is another promising treatment, which was reported to increase short-term food and energy intake. With the understanding that chronic inflammation is an important catabolic factor, strategies to reduce inflammation should also be considered. However, these require more prospective randomized controlled studies with a larger number of patients and long-term follow-up. In conclusion, uremic malnutrition is multifactorial and is a major comorid condition in ESRD patients. Therefore, all efforts should be made in trying to prevent or treat malnutrition to improve the outcomes in this population.