Lecture Code : HD01-S3
Session Name : Hemodialysis
Session Topic : -
Date & Time, Place : June 21 (Sat) / 12:50-14:50 / Room 2 (GBR 102)

Malnutrition and Its Assessment in Hemodialysis Patients

Hyung Duk Kim
The Catholic University of Korea Eunpyeong St. Mary's Hospital, Republic of Korea

---

Malnutrition is a prevalent and significant concern in patients undergoing maintenance hemodialysis (HD), often manifesting as Protein-Energy Wasting (PEW) which is a distinct form of malnutrition in chronic kidney disease (CKD) characterized by the progressive loss of body protein mass and energy reserves. The etiology of malnutrition in HD patients is multifactorial, including decreased appetite, dietary restrictions, metabolic acidosis, chronic inflammation, hormonal imbalances, and increased protein catabolism. Epidemiological data suggest that 28–54% of patients on dialysis experience PEW, with undernutrition linked to adverse clinical outcomes such as higher mortality, increased hospitalization, reduced quality of life, and impaired mental health. Assessment of nutritional status in HD patients requires a multifaceted and ongoing approach. Traditional anthropometric parameters (e.g., body weight, body mass index, mid-arm muscle circumference), biochemical markers (e.g., serum albumin, prealbumin, creatinine), and dietary intake assessments (e.g., food frequency questionnaires, dietary recall) are essential components. Among standardized assessment tools, the Subjective Global Assessment (SGA) is widely used for its simplicity and holistic evaluation of nutritional status, although its subjectivity limits reproducibility. The Malnutrition Inflammation Score (MIS), which incorporates both clinical and laboratory data, offers a more detailed assessment of malnutrition severity and correlates well with clinical outcomes. Importantly, malnutrition in HD patients is not merely a nutritional issue but a systemic one that affects multiple organ systems. Studies demonstrate that low serum albumin levels, declining lean body mass, and reduced muscle function are independent predictors of mortality and poor quality of life in this population. Conversely, improvement in nutritional markers, particularly serum albumin levels, has been associated with better survival outcomes. Nutritional interventions including individualized dietary counseling, oral nutritional supplements, and intradialytic parenteral nutrition (IDPN) have shown potential in improving nutritional status and clinical prognosis. A comprehensive and proactive strategy that integrates regular

assessment and tailored nutritional support is essential to mitigate the burden of malnutrition in HD patients.

Keywords: Hemodialysis, Malnutrition, Protein-energy wasting, Nutritional assessment, Subjective global assessment