A longitudinal study on nutritional assessment and care of Continuous Ambulatory Peritoneal Dialysis (CAPD) patients

Merina E Alex, Preethi, Vijayashree, Georgi Abraham and Milly Mathew  
Institute of Kidney Diseases, Urology & Organ Transplantation - Madras Medical Mission, India

Introduction: Malnutrition inevitably accompanies Chronic Kidney Disease (CKD) and dialysis. This in turn would be associated to higher mortality rate in dialysis patients. In case of PD it has been estimated to be 18–50%. Early nutritional assessment and treatment in PD patients leads to overall better outcome, better quality of life and increased longevity.

Objectives: The objective of the study is to assess the nutritional status of the CAPD patients, initiate nutrition therapy and reassess the nutritional status at three months interval to find out the impact of medical nutrition therapy.

Methodology: Forty CAPD patients were assessed for their nutritional status at the initiation of therapy. Nutritional assessment was done using anthropometric assessment including body composition analysis, bio chemical observations such as serum albumin, hemoglobin, serum iron, total iron binding capacity, diet history and Malnutrition Inflammation Score (MIS). Based and the nutritional status patients were prescribed and educated on nutritional needs as per the national kidney foundation's requirements. Nutritional assessment was repeated after three months of period and the changed were studied.

Results & Discussions: During the initial assessment the malnutrition inflammation score revealed 32% of the CAPD population were well nourished, 54% mild to moderately and 13% severely malnourished. After 3 months of nutrition therapy the MIS showed 34% were well nourished 60% were mild to moderately malnourished and 6% were severely malnourished. This is evident by the increase in the average protein mass (15.27 to 22.8 kg), skeletal muscle mass (21.6 to 22.8 kg), body cell mass (26 to 26.8), mid arm muscle circumference (21.9 to 24). There was no increase in serum albumin levels with the average of 3.2 g/dl.

Conclusion: Early identification and treatment of malnutrition may improve nutritional status and patient outcome in CAPD.

maie_nassar@yahoo.co.uk