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**TWO YEARS STUDY OF NUTRITION COUNSELING INTERVENTION TO IMPROVE  
PROTEIN ENERGY INTAKE AND NUTRITION STATUS IN CHRONIC KIDNEY  
DISEASE ON HEMODIALYSIS**

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**Objectives:** The prevalence of protein energy malnutrition in CKD is 50 – 65%. Nutrient intake is contribute to malnutrition in dialysis population. Although hemodialysis patients are recommended to have a protein intake of  $\geq 1.2$  g/kg IBW and energy intake of 35 kcal/kg/day, nutritional survey indicate actual protein and energy intake are inadequate in most patient. The aim of this study was to find out the association of nutrition counseling intervention with protein energy intake and nutrition status.

**Methods:** This is a cross sectional study performed in 2016 – 2018 (June 2016 to January 2018). Nutrition status was examined using Subjective Global Assessment (SGA) and Intervention of nutrition care process by individual counseling to patients and family.

**Results:** Dietary protein energy intakes were assessed with food recall to 100 patients consist of 52% male and 42% female;  $49 \pm 13.3$  years old. Energy requirement is  $1861 \pm 272$  kcal and protein  $64 \pm 9.3$  gram. Initial assessment found patient's BMI  $23.1 \pm 4.5$  kg/m<sup>2</sup>; energy intake  $1320 \pm 310$  kcal, protein  $42 \pm 3.5$  gram with 17% malnutrition (SGA B & C) and 14% underweight. At two times of nutrition counseling intervention in showed there is no significant change in protein energy intake ( $1420 \pm 420$  kcal;  $44 \pm 4.1$  gram;  $p=0.07$ ), patients body weight ( $59 \pm 8.6$  kg;  $p=0.082$ ), and nutrition status ( $23.1 \pm 4.5$  kg/m<sup>2</sup>;  $p=0.092$ ). After two years of intervention in indicate protein energy intake and SGA score have significantly increased ( $1920 \pm 320$  kcal;  $68 \pm 5.1$  gram; SGA B & C 13%; Underweight 15%;  $p<0.05$ ) however there is no significant increase in body weight ( $60 \pm 7.1$  kg;  $p>0.05$ ) and nutrition status ( $23 \pm 4.3$  kg/m<sup>2</sup>;  $p>0.05$ ).

**Conclusions:** Continuing nutrition counseling every six months and monitoring malnutrition patients every month is the main nutrition intervention in dialysis patient to prevent and address protein energy malnutrition problem.