

KSN 2017 Abstract

KSN-17-P151

ASSOCIATION BETWEEN HEMODIALYSIS VINTAGE AND NUTRITIONAL STATUS BASED ON ANTHROPOMETRY, PHYSICAL, AND DIETARY ASSESSMENT IN MAINTENANCE HEMODIALYSIS PATIENTS IN DR. SARDJITO HOSPITAL INDONESIA

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Objectives : To investigate association hemodialysis (HD) vintage and nutritional status based on anthropometry, physical, and dietary assessment in maintenance hemodialysis (MHD) patients.

Methods : This study was an observational study with a cross-sectional study design. Data utilized was secondary data taken from the main research held in Renal Department of Dr. Sardjito Hospital Indonesia from March to April 2015. Total subject were 114 people who undergoing MHD and meet inclusion and exclusion criteria. The study population was selected using purposive sampling method. All nutritional status of subjects were measured using anthropometry i.e. body mass index (BMI), mid-upper arm circumference (MUAC), and percent body fat, physical i.e. handgrip strength (HGS), dietary i.e. 3-days food record to obtain average of energy and protein intake, and questionnaire subjective global assessment (SGA) and dialysis malnutrition score (DMS). Statistical analysis on SPSS was performed using chi-square test and independent sample t-test.

Results : Malnutrition prevalence based on SGA was 33.6% and DMS was 42.7%. The HGS is related to HD vintage ($p=0.007$) and the average HGS between newly and old HD vintage is 19.23 vs. 16.56. The SGA and DMS are also related to HD vintage ($p=0.02$ and 0.03). The BMI, MUAC, and percent body fat did not relate to hemodialysis vintage ($p=0.51$, 0.19 , 0.84). Energy and protein intake also did not relate to hemodialysis vintage, even the average in newly HD vintage is higher than old one (1274.1 vs. 1255.9 and 46.2 vs. 44.3).

Conclusions : More old HD vintage, more low nutritional status based on HGS, SGA and DMS score, and energy and protein intake. Nutrition intervention should be given to MHD patients indicate malnutrition based on nutrition assessment results.

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Keywords : Hemodialysis vintage, nutritional status, anthropometry, biochemistry, dietary