Nutritional Status in Relation to the Clinical Outcomes of Maintenance Hemodyalisis Patient

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Objectives: To assess the associations between nutritional status and clinical outcomes amongst regular hemodyalisis patients at Dr Sardjito General Hospital in Jogjakarta, Indonesia.

Methods: In the cross-sectional analysis, we investigate 209 patients, men and women aged 21-79 years, undergoing a routine hemodyalisis twice a week (9-10 hours/ week). Every patient was measured their body weight pre and post dyalisis using a digital scale. Blood pressure was measured using spygnomanometer and their haemoglobin and albumin data was obtained from the hospital laboratory. Body weight post dyalisis is used to calculate the body mass index (BMI). BMI ≥18.5 was defined as well-nourished; albumin level ≥ 3.5 g/dL as normo-albuminemia; haemoglobin level ≥ 10 g/dL as normal non-anemic; blood pressure ≥ 140/90 mmHg as hipertension.

Results: The mean for BMI is 22.8, haemoglobin level 9.6 g/dL and albumin 3.7 g/dL. We found that most of the subjects are well-nourished in term of their BMI as well as normo-albuminemia, but anemic & hipertensive (82% & 77%, 65%, and 56% respectively). Those with a higher BMI tend to have a higher Hb level (8.87 ± 1.54 g/dL vs 9.71 ± 1.35 g/dL) as well as albumin level (3.60 ± 0.49 g/dL vs 3.72 ± 0.43 g/dL) eventhough statistically not significant (p>0.05). In addition, there is also no significant increase risk of high blood pressure with BMI (OR 1.14 & p>0.05)

Conclusions: Our evaluation confirmed the beneficial effects of good nutritional status of the hemodyalisis patients in to some indices of their clinical outcomes particularly on haemoglobin and albumin level. We are now analyzing the Diet Quality Index of these patients and may recommend its result to investigate with the clinical outcomes in the future.