

Nutritional Status Assessment of Hemodialysis Patients

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Introduction. Development of nutrition lacking (malnutrition) in patients with chronic kidney disease treated with hemodialysis is one of the most urgent problems in nowadays nephrology worldwide. Prevalence of protein-energy malnutrition among these patients has reached 30–80%, which is one of the main morbidity and mortality factors.

The aim. The aim of the work was to assess nutrition conditions of haemodialysis patients based on various parameters (anthropometric characteristics, nutrition intake, blood serum biochemical indicators) and to disclose the actuality of the above mentioned problem, and work out recommendations for haemodialysis patients.

Materials and methods. The study site is Pauls Stradins Clinical University Hospital, the largest Latvian haemodialysis centre. The study population consists of 35 patients (informed consent) who at the time of the research were 18 or more years old, without acute illness, regularly receiving haemodialysis procedures – 3 times per week. Data collection was implemented by the assessment of patients` data forms and 24-hour Dietary Recall method. The study data have been analyzed using IBM SPSS Statistics version 20.0.

Results. During the study majority of patients did not succeed in receiving the necessary energy level. The obtained data indicates that among the patients of haemodialysis department there is high prevalence of protein energy malnutrition. Only 9% of serum albumin level is equal or higher than 40 g/L and 91% of albumin is less than 40 g/L. Our study shows that there is a statistically credible ($r = -0.408$, $P = 0.017$) negative correlation between serum albumin and C-reactive protein. Statistically credible negative correlation between patients` age, protein ($P = 0.015$) and energy ($P = 0.027$) intake.

Conclusions. The major part of haemodialysis patients does not intake even the minimum recommended amount of protein and energy. Every 4th patient does not intake adequate amount of potassium and phosphorus through his nutrition (more than recommended). ¼ of the patients has elevated fluid amount. Haemodialysis patients have high malnutrition prevalence (> 50%).