

NUTRIOTIONAL STATUS ASSESSMENT IN PATIENTS UNDERGOING HEMODIALYSIS

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Introduction: Approximately 40 to 70 percent of patients with end-stage renal disease are malnourished. The assessment of nutritional status should be a routine care of dialysis patients to permit early recognition and the institution of appropriate therapy. Most of the standard methods of assessing nutritional status can be applied to patients with renal failure; however, some of these parameters are altered by uremia. There is no single measurement that can be used to determine the presence of malnutrition.

Materials and methods: Seventy male hemodialysis patients were included in this study. Nutritional parameters (body mass index, cholesterol, triglyceride, transferrin, albumin, pseudocholinesterase, uric acid, blood lymphocyte count) were measured by standard biochemical tests. Results were evaluated by a Forward stepwise multiple linear regression method.

Results: There were revealed an standard equation; body mass index (kg/m^2) = $1.795 \times \text{cholesterol (mmol/L)} + 2.657 \times \text{transferrin (g/L)}$; that shows a significant association of body mass index especially with cholesterol and transferrin (multiple $R = 0.675$; $P < 0.001$). However, body mass index were not correlated ($P > 0.05$) with zinc, albumin and pseudo-cholinesterase in serum and blood phocyte count. Thereafter, there were revealed an improved equation; body mass index (kg/m^2) = $0.016 \times \text{uric acid } (\mu\text{mol/L}) + 0.756 \times \text{triglyceride (mmol/L)} + 0.955 \times \text{cholesterol (mmol/L)} + 1.875 \times \text{transferrin (g/L)}$; that shows a higher correlation of body mass index (multiple $R = 0.727$; $P < 0.001$) with uric acid, triglyceride, cholesterol and transferrin.

Conclusion: We were suggested equation that may confidentially predict the nutritional status in patients undergoing hemodialysis.