

## PROTEIN ENERGY WASTING IN PERITONEAL DIALYSIS PATIENTS

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Among many risk factors that affect outcomes of patients with chronic kidney disease and the ones on maintenance dialysis, the state of metabolic and nutritional derangements called "protein-energy wasting" (PEW) plays a major role. Most guidelines recommend that nutritional status should be evaluated by using a combination of valid, complementary measures.

The aims of this study were to analyze body composition, to detect the presence of undernutrition, and to establish the relationship between parameters of body composition, body mass index (BMI) and laboratory parameters routinely used as indicators of nutritional status in PD patients. Body composition was examined by a body composition monitor (BCM) that expresses body weight in terms of lean tissue mass (LTM) and fat tissue mass (FTM). BMI is defined as the weight in kilograms divided by the square of the height in metres (kg/m<sup>2</sup>). All the patients had blood samples taken for biochemical analysis (creatinine, albumin, cholesterol).

Our study included 37 peritoneal dialysis patients (23 female and 14 male). Our study was able to show high prevalence of undernutrition (56.76% of patients) expressed by low LTI, in our group of patients. Most of the patients had normal FTI (83.78%). Body mass index was not a good marker of nutritional status of our patients and according to this parameter there were no malnourished patients in our study group. The levels of creatinine and cholesterol showed positive correlation with LTM, proving to be good markers of nutritional status while the levels of albumin failed to show any correlation with other parameters of nutritional status. The 3 year follow up showed that the LTI has a positive correlation with survival.

Our conclusions are that PEW is common in dialysis patients. It should be assessed by complementary methods, and patients at risk should be treated adequately to reduce the risk of morbidity and mortality.

*Acta Medica Medianae 2019;58(3):10-14.*

**Key words:** *protein energy wasting, body composition, body mass index, peritoneal dialysis*