

# EVALUATION OF RELATIONSHIP BETWEEN ANEMIA BODY COMPONENTS, NUTRITIONAL STATUSES AND QUALITY OF LIFE IN PATIENTS WITH CHRONIC KIDNEY DISEASE AT PREDIALYSIS STAGE

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## OBJECTIVES

In patients with Chronic Kidney Disease (CKD), mortality and morbidity may be related to the secondary results of anemia. However data for this subject in predialysis CKD patients is largely missing. In our study, we aimed to evaluate the anemia frequency in the predialysis patients with CKD, body components and albumin levels, and nutritional statuses to identify their possible effects on the life quality. Thus, we intended to state the correctable factors that will provide betterment in the life quality of patients in the pre-dialysis period.

## METHODS

Patients who were followed up with a diagnosis of CKD and GFR<60 ml/dk were enrolled to the study. Patient demographic, clinical and laboratory data were obtained from the patients' file. GFR values were calculated with the MDRD formula. Anemia was defined by hemoglobin limit of  $\leq 12$  g / dL and severe anemia by hemoglobin  $\leq 10$  g / dL. Bioimpedance Analyses(BIA) was performed to evaluate body components. All patients were evaluated with KDQOL-36 quality of life scale forms. Patients were grouped according to presence of anemia and compared regarding biochemical data, BIA and KDQOL-36 scores.

## RESULTS

161 patients were included the study. Demographic characteristics, laboratory data, fat and lean body mass according to BIA for the patients are shown in Table 1. Anemia (hemoglobin <12g/dL) was detected in 44.7%, severe anemia (Hb <10 g / dL) was detected in 9.8% of all patients. Correlations between the KDQoL-36 scores, renal function, anemia and nutritional parameters are shown in Table 2. It was seen that SF-12 Physical Health component showed a significant correlation with the nutritional parameters that were measured by BIA. It was also observed that Burden of Renal Disease was correlated with creatinine clearance and albumin levels in the foreground, besides anemia. No relationship was found between our study parameters and the SF-12 Mental Health component.

	Symptoms/problems list		Effects of kidney disease		Burden of kidney disease		SF-12 physical health component		SF-12 mental health component	
	r	p	r	p	r	p	r	p	r	p
Creatinin clearance (ml/min/1.73m <sup>2</sup> )	0.144	0.069	0.183	<b>0.02</b>	0.193	<b>0.014</b>	0.151	0.056	0.007	0.926
Hb, g/dL	0.132	0.094	0.137	0.082	0.160	<b>0.042</b>	0.267	<b>0.001</b>	-0.031	0.699
Albumin, g/dL	0.121	0.127	0.100	0.206	0.190	<b>0.016</b>	0.097	0.223	0.036	0.653
Lean mass %	0.156	<b>0.048</b>	-0.024	0.766	-0.109	0.169	0.401	<b>0.000</b>	-0.066	0.406
Fat mass %	-0.076	0.353	0.020	0.797	0.148	0.061	-0.243	<b>0.002</b>	0.125	0.116

## CONCLUSIONS

Anemia treatment is not optimal in predialysis CKD patients. Beside anemia, lean body mass and fat mass were also correlated with KDQOL SF-12 physical health composite score. Anemia and nutritional status of predialysis CKD patients should be closely followed up and optimal management should be planed.

## REFERENCES:

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