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CKD & associated complications

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SUBJECTIVE GLOBAL ASSESSMENT AND DIALYSIS MALNUTRITION SCORE IN EVALUATION OF NUTRITION STATUS OF DIALYSIS PATIENTS IN KAZAKHSTAN

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Background: Malnutrition remains a critical risk factor for poor outcome in patients receiving hemodialysis. Kazakhstan has not implemented screening scores which assessing the nutritional status of the patients. We aimed to adapt for using Subjective Global Assessment of Nutritional Status (SGA) and Dialysis malnutrition scores (DMS) in our country.

Methods: This study included 51 patients undergoing hemodialysis. SGA score DMS scale were evaluated. Anthropometric parameters (mid-arm circumference (MAC), triceps skinfold thickness (TSF), arm-muscle circumference (AMC), body mass index and laboratory parameters were also recorded. Patients were divided to two groups according to dialysis vintage (up to and more than 24 months).

Results: The mean age of patients was $48,7 \pm 14,1$ years, 54.9% male. The total score on a scale of SGA and DMS were $42,0 \pm 5,09$ and $10,7 \pm 2,75$ respectively. Of these, well nourished (SGA-A) - 35 patients (68.6%), moderately undernourished (SGA-B) - 15 patients (29.4%) and was identified only 1 (2.0%) patient (severely undernourished - SGA-C). On a scale of DMS, malnutrition score was normal in 29 (56.7%) patients, which is less than the result obtained in the evaluation on a scale of SGA. Moderate malnutrition was detected in 20 (39.2%) patient and the evaluation scale DMS was also identified 1 patient with severe malnutrition. Comparison of nutritional status of patients: according to the duration of dialysis presented in Table-1. SGA and DMS scores significantly correlated with MAC ($r=0.29$; $p=0.039$ and $r=-0.36$; $p=0.011$, respectively), TFS ($r=0.39$; $p=0.006$ and $r=-0.29$; $p=0.041$, respectively) and percentage of weight loss ($r=0.71$; $p<0.001$).

Conclusion: Majority of patients (98%) undergoing maintained hemodialysis had a low or medium risk of violating nutritional status. SGA and DMS scores should be validated for Kazakhstani patients and their nutritional status should be considered to improve the quality and duration of life on dialysis.

Table:

Criterion	Group-1 (<24,0 months, n=27)	Group-2 (>24,1 months, n=24)	<i>P</i> <i>valu</i> <i>e</i>
TSF, cm	$5,70 \pm 0,93$	$5,81 \pm 1,69$	0,774
MAC, cm	$27,1 \pm 3,25$	$28,72 \pm 3,31$	0,045

AMC, cm	9,73±4,22	10,4±4,80	0,583
Overall SGA scores	42,63±4,31	41,52±5,73	0,813
SGA-A, number of patients	20 (74,0%)	15 (62,0%)	-
SGA-B, number of patients	7 (25,9%)	8 (33,3%)	-
SGA-C, number of patients	-	1 (4,17%)	-
Overall DMS scores	10,04±2,07	11,44±3,13	0,107
Normal, number of patients	19 (70,3%)	11 (45,8%)	-
Moderate malnutrition, number of patients	8 (29,6%)	12 (50,0)	-
Severe malnutrition, number of patients	-	1 (4,17%)	-

Keywords: DIALYSIS MALNUTRITION SCORE IN EVALUATION, NUTRITION, SUBJECTIVE GLOBAL ASSESSMENT