

Prevalence of nutritional disorders in older adults with predialysis stages of chronic kidney disease

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Abstract

Statement of the Problem: The number of geriatric patients with predialysis stages of chronic kidney disease (CKD) has increased significantly. Malnutrition and protein energy wasting (PEW) are prevalent in older patients with advanced CKD and are associated with mortality.

Aim: The purpose of this study is to assess prevalence of nutritional disorders in geriatric patients with predialysis stages of CKD.

Methods: The study included 106 geriatric patients with CKD 3 b-5 stages: 42 males and 64 females; age range of 60 to 90 years; mean age 76.5 ± 9.2 years; patients with CKD3b stage-67.9% of patients, CKD4-24.5 % and CKD5-7.5%. The patients were assessed by Mini Nutritional Assessment Scale (MNA), Subjective Global Assessment, anthropometry and biochemical indicators of nutritional status.

Results: According to the MNA 72, 1% of patients with CKD 3b stage have normal nutritional status, 18.6% patients are at risk of malnutrition 9.3% are malnourished. 41.7% of patients with CKD 4 stage have normal nutritional status, 33.3% patients are at risk of malnutrition 25% malnourished. In patients with CKD 5 42.9% are at risk of malnutrition, 57.1% patients are malnourished. There are results of accessing by SGA scale on Figure 1. The level of total cholesterol in the blood serum in the elderly patients with CKD stage3b-5 decreases with increasing risk of PEW in MNA($r=0.46$). The level of total protein in the blood serum is correlated with nutritional disorders on the SGA scale($r=-0.52$) in geriatric patients with predialysis stages of CKD.

Summary: The prevalence of nutritional disorders of mild and moderate severity is observed in 33-43% of elderly patients with stage 3B-4 CKD and until 75% with stage 5CKD. Severe symptoms of PEW occur in 8-25% of older patients with CKD stage 3b-4and 25-50% with CKD stage.



Biography:

Elina Borkhanova is a PhD student from Kazan State Medical University. She is medical doctor and dietician.

Elina is interested in clinical nutrition, her research work is about effects of low-protein diet and normal-protein diet for nutritional status in older patients with chronic kidney disease 3B-5 stage.



Speaker Publications:

1. Lorenzo-López et al. Nutritional determinants of frailty in older adults: A systematic review. BMC Geriatrics (2017) 17(1):108.
2. Ismay N van Loon, Tom R Wouters, Franciscus T J Boereboom, Michiel L Bots, Marianne C Verhaar and Marije E Hamake (2016) The relevance of geriatric impairments in patients starting dialysis: a systematic review. Clin J Am Soc Nephrol. 11(7):1245-59.
3. Aki Kiuchi, Yasushi Ohashi, Reibin Tai, Toshiyuki Aoki, Sonoo Mizuiri, Toyoko Ogura, Atsushi Aikawa and Ken Sakai (2016) Association between low dietary protein intake and geriatric nutrition risk index in patients with chronic kidney disease: a retrospective single-center cohort study. Nutrients. 8(10):662.
4. Zhiying Zhang, Suzette L Pereira, Menghua Luo and Eric M Matheson (2017) Evaluation of blood biomarkers associated with risk of malnutrition in older adults: a systematic review and meta-analysis. 9(8).

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