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Hand Grip Strength Differences between Chronic Kidney Disease Patients on Hemodialysis and Continuous Ambulatory Peritoneal Dialysis

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Objectives: The aim of this study is to determine the differences in the outcome of HGS between patients on hemodialysis and CAPD.

Methods: The cross-sectional study was conducted 36 Hemodialysis patients and 36 CAPD patients.

Results: The results of this study obtained the HGS value of HD patients (16.5 ± 10.2) and CAPD (23.2 ± 8.7), which is a significant difference in the value of HGS (p <0.005) while the BMI value was not statistically different (p> 0.005), which is the average BMI of Hemodilalysis D 21.2 ± 3.5 and BMI of CAPD 23.3 ± 3.8.

Conclusions: Hand Grip Strange (HGS) is an indicator that illustrate the nutritional status of Chronic Kidney Disease (CKD) patient with renal replacement therapy. From the analysis it was found that although the BMI value was not significantly different, the HGS value was different where patients with CAPD were stronger than Hemodialysis patients. Emphasis is needed to meet the protein requirements of Hemodialysis patients and dietitians must pay attention to any factors that influence the inadequate protein intake, or the presence of inadequate activities resulting in decreased muscle strength in patients. Special attention in maintaining optimal nutritional intake and nutritional status to maintain and increase quality of life.

BMI and Hand Grip Strength Descriptions

Table 1. BMI and Hand Grip Strength Descriptions

Characteristics	Hemodialysis				CAPD			
	Mean±SD	Median	Min	Max	Mean±SD	Median	Min	Max
BMI	21,2±3,5	20,9	14,7	31,6	23,3±3,8	23,2	15,4	29,7
Handgrip Strength	16,5±10,2	13	5	41,7	23,2±8,7	21,7	10,8	46,9

Table 2. Hand Grip Strength Differences between Chronic Kidney Disease Patients on Hemodialysis and Continuous Ambulatory Peritoneal Dialysis

Dialysis	n	Mean	Standard Deviation	p
Hemodialysis	36	16,5	10,2	0.001[a]
CAPD	36	23,2	8,7	

[a] Independent T-Test