
A STUDY OF COGNITIVE FUNCTIONS IN KIDNEY TRANSPLANT VERSUS HEMODIALYSIS PATIENTS IN KASR EL AINI NEPHROLOGY CENTER – AN EGYPTIAN EXPERIENCE

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Objectives:

The aim of the present study was to (i) examine cognitive functions in kidney transplant recipients and a concurrently assessed group of dialysis patients on the waiting list for a kidney transplant; (ii) assessment of cognitive functions in transplant patients in relation to their estimated glomerular filtration rate (eGFR) by Modification of Diet in Renal Disease (MDRD).

Methods:

The study included 60 transplanted patients of both sexes from Kasr Alaini King Fahd Unit. Their age ranged from 18-65 years old. Glomerular Filtration Rate (GFR) was calculated by the MDRD equation (Modification of Diet in Renal Disease). Then the transplanted patients were divided into two groups according to the estimated level of glomerular filtration rate (GFR). Another group included 30 patients of both sexes on hemodialysis with the same age range from Kasr Al-Aini King Fahd Unit. A 60 control healthy individual with age and sex matched were recruited in the study. All subjects in three groups were subjected to the following: Full clinical Kasr Alaini Psychiatric sheet and diagnosis if any was according to DSM IV TR criteria, Trail-Making Test, and Montreal Cognitive Assessment (MoCA).

Results:

Patients with chronic kidney disease and dialysis were significantly affected in trail making B, total attention, total visuospatial, delayed recall and total MoCA scores in comparison with the control healthy group. Transplant patients showed more significant affection in scores of trail making B test, total visuospatial, total attention, delayed memory recall and total MoCA scores than the control group. This study found that the level of estimated glomerular filtration rate (eGFR) by MDRD did not show significant difference in cognitive functions in transplant patients.

Conclusion:

The cognitive deficits are a prevalent and costly burden to chronic kidney disease patients. Longitudinal researches are needed to clarify the prevalence and sequelae of neurocognitive deficits among patients with chronic Kidney disease treated with dialysis or kidney transplantation.