

### Cognitive function deficits in type 1 diabetes mellitus: An observational cross-sectional study



#### Ibrahim El Bayoumy

Tanta University, Egypt

**Objective:** Previous studies have shown that Diabetes Mellitus (DM) is associated with an increased risk of cognitive impairment, but little data is available on Arabic populations, in spite of their remarkably high prevalence of diabetes mellitus in Kuwait. In this study we attempt to study the effect of DM on cognitive performance in both types of diabetes mellitus.

**Design:** Observational cross sectional study.

**Setting:** Diabetes clinic in Farwaniya hospital-Kuwait. The study included 250 patients with type 1 diabetes were selected for this study aged  $48.5 \pm 3.8$  years, 151 have met the criteria for choice were studied and 100 patients without diabetes was selected as a control group.

**Measurements:** 151 type 1 diabetics underwent cognitive assessment using the Mini-Mental State Examination (MMSE) and Montreal Cognitive Assessment Test (MoCA).

**Results:** The prevalence of mild cognitive impairment was 62.5% using Mini-Mental State Examination (MMSE) with score ( $22 \pm 2.1$  compared to  $28.33 \pm 2.7$  in the control non diabetic group) also patients showed mild cognitive deficits using the Montreal Cognitive Assessment that has negative correlation with HbA1c, lipid profile and high sensitivity C reactive protein.

**Conclusion:** Cognitive fiction deficits were observed in type 1 diabetics and it is associated with long duration of diabetes.

#### Biography

Ibrahim El-Bayoumy holds bachelor of medicine and surgery (Tanta faculty of medicine-Egypt, 1989), then he earned his master degree in public health, preventive and social medicine (Tanta faculty of medicine-Egypt 1996) and MD, PhD in public health, preventive and social medicine 2003 from Tanta faculty of medicine-Egypt and McGill faculty of medicine-Montreal-Canada in division of clinical epidemiology in Royal Victoria hospital through double channel system as scholarship from ministry of education-Egypt. He is Full professor of public health and community medicine in Tanta faculty of medicine-Egypt since November 2016. Now he is working in ministry of health in Kuwait as consultant of public health and preventive medicine. He has published many research works in international journals, he is interested in research in epidemiology of infectious diseases like HIV, tuberculosis, brucellosis and infectious hepatitis, he is interested in epidemiology of chronic diseases like diabetes mellitus and its health economics, obesity and cancer and pharmacoepidemiology. He is a reviewer of many national and international journals. He has obtained post-graduate Master degree in diabetes care and education-Dundee faculty of medicine-Scotland-UK October 2015. He is working now as lecturer and tutor for post graduate studies of public health in university of South Wales-UK. He is Adjunct professor in school of public health in Texila American University in Guyana-South America since May 2018.

**Received:** January 06, 2023; **Accepted:** January 08, 2023; **Published:** February 20, 2023