

Correlation between Cognitive Functions and Activity of Daily Living among Post-Stroke Patients

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Abstract

Background: Cognitive impairment is one of the most common post-stroke complications; however, neither patients nor health professionals are often aware of this complication. The impact of cognitive impairment on quality of life is reflected through basic activity daily living (bADL) and instrumental activity daily living (IADL). Prior studies concerning the correlation between cognitive impairment and activity daily living has shown contradictory results. This study was conducted in order to analyze the correlation between the cognitive functions and activity daily living in post stroke patients at Dr. Hasan Sadikin General Hospital.

Methods: This cross-sectional study was carried out to 23 post-stroke patients from September–November 2015. Samples were collected through consecutive sampling at Dr. Hasan Sadikin General Hospital. Mini Mental State Examination (MMSE) was used to assess the cognitive functions and Lawton and Brody Scale to assess both bADL and IADL. Spearman correlation was selected to analyze the existing correlation between each cognitive domain and activity daily living.

Results: Spearman statistical correlation showed an insignificant correlation between the cognitive functions and bADL ($r^2=0.181$, $p=0.408$) and a significant correlation with IADL was obtained ($r^2=0.517$, $p=0.03$). The only cognitive domain positively correlated with IADL was orientation to time and verbal recall.

Conclusions: There is a correlation between cognitive functions and IADL among post-stroke patients at Dr. Hasan Sadikin General Hospital. [AMJ.2016;3(3):329–33]

Keywords: Activity of daily living, cognitive function, post stroke

Introduction

Stroke is one of a cerebrovascular diseases defined as a clinical syndrome consisting of rapidly developing clinical signs of focal (or global in case of coma) disturbance of cerebral functions that lasts more than 24 hours or leading to death with no apparent cause other than a vascular origin.¹ Even though there is a decline in stroke mortality in America, it is still the fourth leading cause of death there.² Stroke has many complications that may lead to neurological disorders, infections of several organs, immobility, thromboembolism, pain, and psychological disorders.³ Unfortunately, not all stroke patients and health professionals

are aware of the impact induced by all those complications, especially the insidious complications such as cognitive impairment which may not be life threatening but will result in diminished quality of life, depicted by a lower score in basic and/or instrumental daily activities.³⁻⁴

There are two different types of daily activities, namely, basic activity of daily living (bADL) and instrumental activity of daily living (IADL). Basic activity of daily living consists of several activities responsible for self care. The components of bADL are bathing, toileting, dressing, feeding, functional mobility, personal device care, personal hygiene, grooming, sexual activity, and toilet hygiene.⁵ On the other hand, IADL consists of several activities

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