Service Priorities and Programmes

Electronic Presentations

Convention ID: 666
Submitting author: Ms Teresa Lai Fong LEUNG
Post title: Occupational Therapist I, Prince of Wales Hospital

The relationship between the Abbreviated Mental Test (Hong Kong version) and the Chinese Mini-Mental State Examination in the assessment of Cognitive Impaired Elderly

Leung LFT (1), Choi WKG (1), Ng PCA (1), Yau CMC(1), Siu CHD (1), Wong KMR (1), , Au LYF(1), Wong A(2), Mok CTV(2)
(1) Occupational Therapy Department, Prince of Wales Hospital
(2) Department of Medicine and Therapeutics, Faculty of Medicine, Chinese University of Hong Kong

Keywords:
Chinese Mini-Mental State Examination
Abreviated Mental Test
Assesment
Cognitive Impaired Elderly

Introduction

The Cantonese Mini-Mental State Examination (CMMSE) which tests many domains of cognition correlates well with other well recognized cognitive assessment has been widely used in different settings in Hong Kong, for assessing cognition in a wide spectrum of cases. The Abbreviated Mental Test (AMT) is recommended by both the Royal College of Physicians and the British Geriatrics Society for screening of abnormal cognition in elderly patients. A modified local version of the AMT has been developed and used widely in Hong Kong. Knowledge of the relationship between the local version of AMT and CMMSE would be clinically useful. A good predictive power for abnormal cognition and a strong correlation with CMMSE will support the use of AMT. In contrary, a poor predictive power and a poor correlation might question the value of performing the AMT routinely.

Objectives

To determine the predictive ability of AMT for abnormal cognition and its correlation and agreement with the Cantonese Mini-Mental State Examination (CMMSE) in assessment of cognitive impairment.

Methodology

We investigated prospectively the relationship between the AMT and MMSE in a consecutive series of in and outpatients with different diagnoses including: stroke, Mild Cognitive Impairment (MCI), dementia, referred for cognitive assessment at the Prince of Wales Hospital. AMT and CMMSE were administered within the same sessions by the same assessors (Occupational Therapists or trained Personal Care Assistants) The relationship between the two tests evaluated statistically with SPSS

for predictive power of AMT against cognitive status by CMMSE, and the correlation between individual AMT and CMMSE scores were examined.

Result

The AMT and CMMSE were administered to 123 patients in December, 2016. Each patient's cognitive status was defined as normal or impaired, according to their respective cut-off scores: <6 (AMT) and <18 (CMMSE). The proportion of patients classified as abnormal by the two tests was compared (the percentage of patients whose cognitive state by the MMSE was correctly categorized by the AMT). The Positive Predictive Value(PPV) was found to be 63% (41/(24+41)), which means probability of transformed CMMSE score from AMT with a positive result, 24 patients with normal AMT score were classified as having abnormal cognition determined on the CMMSE. Moreover, Pearson correlation between the total scores of CMMSE and AMT was 0.603. A moderate agreement was found between the two tests (Kappa: 0.568). In conclusion, our results showed that AMT has fair predictive efficiency for abnormal cognition and a fair correlation with CMMSE score.