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لم ترد بالأصل

PROGNOSTIC VALUE OF VARIOUS NEUROPHYSIOLOGICAL STUDIES IN PATIENTS WITH STROKE

Thesis

Submitted In Partial Fulfilment For The Requirements of
MD Degree In Neurology

By

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List of abbreviations:

CMCT = Central motor conduction time

CSCT = Central sensory conduction time

EP = Evoked potential

HMAS = Hand motor assessment scale

MAS = Modified Ashworth scale

MEP = Motor evoked potential

MRCS = Medical research council scale

SEP = Somatosensory evoked potential

TMS = Transcranial magnetic stimulation

Introduction
and
Aim of the work

Introduction

Stroke is the third most common cause of death and is the commonest neurological cause of disability worldwide. Nearly 50% of stroke patients survive for 5 years.

Although diagnosis of stroke is no longer a problem after the advances in neuroimaging techniques, predicting functional outcome following stroke remains a problem to which there is not yet a satisfactory solution. Accurate and early prediction of the outcome of acute stroke would help early management and planning of rehabilitation and has been shown to improve the management. And, it also has been argued that certain subgroups of the stroke population may get benefit more than others from specific rehabilitation services. So, it is very important to identify predictors that discriminate between stroke patients with good and poor prognosis.

For many years somatosensory evoked potentials (SEPs) have been studied in patients with stroke to test its value in predicting the outcome. Most of the studies found some degree of predictability. However, some authors reported no adding role of SEP over the clinical evaluation in predicting stroke outcome.

The motor evoked potentials (MEPs) are generated through stimulation of the motor cortex through the intact skull. It provides an objective reproducible method for demonstrating abnormal function of the motor cortex or the central motor pathways. The two known methods of cortical stimulation are electrical and magnetic. Magnetic stimulation is a pain free, readily acceptable by subjects.

The different characteristics of MEPs elicited by transcranial magnetic stimulation (TMS) have been evaluated in different studies in correlation to the clinical status of patients with stroke. Also, the relationship between MEP and the clinical outcome of function in stroke have been studied for many years. Most of studies found some role of MEP in prediction of stroke outcome but still others found no correlation with outcome or at least MEP has no additional value over and above the clinical examination in outcome prediction.

Aim of the work:

The aim of the study is to evaluate the role of somatosensory and motor evoked potentials in the prediction of outcome of stroke and whether their role is superior to the simple clinical examination.

***Review
of
literature***