

SERUM PROLACTIN LEVELS AS A DISTINGUISHING BIOLOGICAL MARKER BETWEEN TRUE AND PSEUDOSEIZURES: A PROSPECTIVE LONGITUDINAL STUDY

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ABSTRACT

Background

Epilepsy is a major neurological disorder which affects about 50 million people around the globe. It is considered as a public health problem by World Health Organization (WHO). Pseudo seizure is also an area of concern in today's stressful lives and it's difficult to distinguish between the two. Thus the current study was undertaken.

Objectives

To assess the role of serum prolactin levels as a biological marker to distinguish between true and pseudo seizures.

Methods

All patients of seizures admitted in the inpatient ward of department of medicine and who fulfilled the inclusion criteria's were studied in the study period of six months from July 2015 to December 2015. We thus carried out our study in a total 90 patients.

Results

The mean of the baseline prolactin levels of the subjects with epileptic seizures and pseudo seizures were 338.26 and 316.41 respectively and there was no significant difference between the two mean levels, whereas the mean of the postictal prolactin levels measured after 15 minutes of the seizure was 1795.49 in case of epileptic seizures and 387.12 in case of pseudo seizures and there was a statistically significant difference between the two means. On comparison of means of the baseline and postictal prolactin levels a highly significant difference was found in case of epileptic seizure ($p < 0.01$), whereas there was no significant difference in case of pseudo seizures ($p > 0.05$).

Conclusions

Serum prolactin levels following true epileptic seizures rise to a statistically significant level compared to that in case of pseudo seizures. Thus the level of elevation in the serum prolactin level can be used as a distinguishing marker between true epileptic seizure and pseudo seizure.

KEYWORDS: Serum Prolactin Level, True Epileptic Seizure, Pseudo Seizure, Biological Marker

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