

ABSTRACT

DIAGNOSTIC POTENTIAL OF SERUM PROLACTIN AS ALTERNATIVE DIAGNOSTIC TOOL FOR CHILDREN WITH EPILEPSY

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In epileptic seizures proinflammatory cytokines such as IL-1b, IL-6, TNF-alpha increases in the central nervous system and blood. EEG examination is a primary diagnostic, but it is quite difficult to perform in children and sensitivity EEG is 50%-55% with specificity 96%. The aim of this study to determine diagnostic potential by knowing sensitivity and specificity of prolactin serum and also to analyze correlation between IL-6 level and serum prolactin in epileptic seizures .

This diagnostic study was performed between between January 2013 and December 2013. Thirty patients aged 3 months to 15 years old with seizure without fever who admitted to the emergency department were included. Blood samples were collected within 2 hours after seizure. Serum prolactin levels and interleukin 6 were measured, and EEG examination were performed. Statistical analyses were performed to analyse associations between variables.

Result of this study are sensivity of prolactin is 73.3% and specificity of serum prolactin level is 93.3% with cut-off point of 17.2 ng/ml. There is strong correlation between prolactin and IL-6 in epileptic seizure with correlation coefficient of 0.72, $p < 0.001$. Sensitivity and specificity of interleukin-6 level are 73.3% and 86.7% with cut-off point of >9.05 pg/ml.

In this study it was found that examination of serum prolactin levels within two hours after the seizure can be used for screening purposes to distinguish epileptic seizure or non epileptic There was a strong relationship between the levels of IL - 6 with serum prolactin levels in epileptic seizures

Keywords: Prolactin – Interleukin-6 – Epileptic seizures