The role of serum prolactin in diagnosis of seizure disorders in children

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Objective: The purpose of this study is to review the use of serum prolactin assay in epileptic seizure diagnosis and to differentiate between epileptic seizures from psychogenic non-epileptic seizures in children. Patients: This study was conducted in 48 children aged 1-18 years of age, the study comprised of four groups: Group-1, consisted of children with epilepsy which was further subdivided into GTCS, CPS and SPS. Group-2 comprised of children suffering from non-epileptic paroxysmal events like breath holding spell, syncope and pseudoseizures. Group-3, comprised of children having febrile convulsions. Group-4 consisted of children who served as controls. Methods: Blood sample was collected within two hours of the event in all the groups, serum prolactin level was estimated by ELISA technique. Results: in the present study, significant elevation of serum prolactin level was observed only in the Group-1 (28.31 ± 15.61) as compared to controls (9.97± 2.91) and the highest levels were observed in children with GTCS and with status epilepticus, serial seizures, maximum elevation of prolactin was seen within 2 hours post ictally, as the prolactin levels become normal after two hours of post ictal period, the test loses its significance. Recommendations: Elevated serum prolactin assay, when measured in the appropriate clinical setting within 2 hours after a suspected event, is a useful adjunct for the differentiation of epileptic seizures from psychogenic non-epileptic seizure among children.