

### **Associated Parental Risk Factors among Epileptic Patients Attending Teaching Hospital Anuradhapura, Sri Lanka: A Case Control Study**

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Epilepsy is a common neurological disorder of the brain, affecting around 65 million of people worldwide. Reported risk factors associated with epilepsy are family history, head trauma, brain infection, prenatal injuries, and newborn distress. However, paucity of data is found regarding associated parental risk factors of epilepsy especially in developing countries like Sri Lanka. Objective was to determine the association between epilepsy and parental risk factors among the epileptic patients attending to Teaching Hospital Anuradhapura, Sri Lanka. This was an unmatched case control study. Two hundred diagnosed epileptic patients [male (52%), age 12-45 years] were recruited from neurology clinic at Teaching Hospital Anuradhapura, Sri Lanka as the case group. Patients with cerebral palsy, mental retardation and psychiatric disorders were excluded. Only the first identified cases in each sibling were included while affected siblings were excluded. Two hundred controls [male (30%), age 12-45 years] were recruited from the Out Patient Department (OPD), excluding those having any neurological disorders. An interviewer administered questionnaire was used to identify associated parental risk factors among epileptic patients. Parental risk factors associated with epilepsy were consanguinity [18.8% in epileptics vs 8% in controls, odds ratio (OR) 2.6, 95% confidence interval (CI) 1.4-4.9,  $p=0.002$ ] and family history (18.3% vs 5.5%, OR 3.8, 95% CI 1.9-7.7,  $p=0.0001$ ). However, maternal age at child birth, parental age gap and mode of delivery were not associated with epilepsy. Parental factors such as consanguinity and family history increase the risk of epilepsy among offspring. Hence, it is advisable to increase awareness in the community, about the possible medical problems associated with consanguineous marriage in Sri Lanka.

**Keywords:** Epilepsy, Parental risk factors, Consanguineous marriages, Family history, Parental age gap