

## ABSTRACT

**Background:** Acute encephalitis syndrome (AES) is defined as the acute-onset of fever and a change in mental status (including signs and symptoms such as confusion, disorientation, delirium or coma) and/or new-onset of seizures (excluding simple febrile seizures) in a person of any age at any time of the year. Acute viral encephalitis is the most common cause of acute encephalitis syndrome (AES).

**Aims and objectives:** To study the etiological profile of children with acute encephalitis syndrome, to identify the most common pattern of clinical presentation and to study the immediate outcome in children with AES.

**Materials and Methods:** A total of 56 patients with AES who were hospitalized in the Department of paediatrics, govt Theni medical college, Theni during July 2016 to June 2017 were followed during hospitalization. All were subjected to detailed clinical examination and investigated along with viral diagnostic studies on cerebrospinal fluid (CSF) samples to determine the aetiology of AES.

**Results:** The prevalence of AES was 1.03%. Most common age group affected is below 1 year. Male children are more affected than females with a ratio of 1.4:1. Most common presenting symptom was fever with altered sensorium (85.7%). Mechanical ventilation was needed in 18 patients (32.1%). GCS was < 8 in 14 (25%) patients. Out of 56 cases aetiology was confirmed in 13 cases (23.2%). Out of which bacterial aetiology was found in 5 cases (8.9%) followed by tuberculous aetiology in 3 cases. Among 5 viral aetiology 3 cases were found to be varicella encephalitis. Out of 56 patients 34 (61%) were recovered fully, 10 patients (12.5%) had sequelae, 7 children (12.5%) expired. The predictors of the poor outcome were Poor GCS at presentation, Need for mechanical ventilation, Hyponatremia, Abnormal neuro imaging.

**Conclusion:** In 68% of cases the etiology is not known. Consideration should be given to detection of these AES etiologies. This will directly impact the formulation of health policies of AES in India. Which includes identifying targets for immunization, chart preventive strategies and implement appropriate control measures, especially in outbreak situations and formulating other public health interventions.