

Clinico-Etiological Profile of Children with Acute Encephalitis Syndrome- A Prospective Observational Study

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ABSTRACT

Aim: This study was done to find out the etiological profile and outcome of children admitted with AES in an urban tertiary care centre.

Design: A Prospective observational study

Setting: This study was carried out in an urban tertiary care teaching hospital, Chennai, India between September 2014 and July 2016

Method: Children admitted with clinical criteria of AES were included in the study. Demography, clinical presentation, cerebrospinal fluid analysis, electro encephalography and neuroimaging findings were collected. CSF was tested for IgM antibody against Japanese B encephalitis virus (JE), Varicella-Zoster virus and Dengue virus, Gene-expert for Mycobacterium tuberculosis, Polymerase chain reaction for Herpes simplex virus, anti NMDA antibody and bacterial culture. Dengue and scrub typhus serology was done in blood. Children were followed up till discharge/death.

Results: 50 children (male n=22) with AES were recruited. In 31 children (62%), aetiology of AES was identifiable. Dengue was the commonest (14%). Posturing, abnormal spino-motor examination findings, abnormal EEG and neuro-imaging findings were significantly associated with mortality or sequelae. 33 children (66%) recovered well. Mortality rate was 8%, neurological sequelae were seen in 13 children (26%).

Conclusion: With advent of JE vaccine inclusion, dengue encephalitis has become the commonest cause of AES. Emerging diseases like scrub typhus and autoimmune encephalitis also should be considered in the evaluation of AES.

Keywords: Acute encephalitis syndrome, Dengue, Japanese B encephalitis, Scrub typhus

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