

Adults with Severe Encephalitis: A Retrospective Analysis

Alberto Mari*

Immunology Research Institute, Maryland, United States.

LETTER TO EDITOR

Encephalitis is a critical problem of public health worldwide, however, most of the previous studies on encephalitis have focused on children, and there is limited data on the clinical features and prognostic indicators of the eventual outcome of adult with severe encephalitis. Herein, we analyzed and summarized the clinical data and follow-up results of 9 adults with severe encephalitis.

The clinical manifestations, laboratory study & brain neuroimaging of patients with severe encephalitis admitted to our hospital from July 2017 to August 2018 were statistical analyzed retrospectively. All patients were followed-up for 6 months after discharge. The patients were grouped into good prognosis and poor prognosis according to the results of followed-up. This retrospective study consists of 9 adults with severe ENCEPHALITIS, including 4 cases with good prognosis and 5 cases with poor prognosis. Typical clinical manifestations of ENCEPHALITIS include fever (100%), altered consciousness (100%), headache (66.67%), flaccid weakness (66.67%) and seizures (44.44%) were also noted. Serological examination revealed a low viremia; patients with a higher percentage of neutrophils and a lower percentage of lymphocytes at admission tend to a poor outcome. In neuroimaging, apart from classical involvement of thalamic (85.71%), midbrain (28.57%) & basal ganglia (14.29%), prominent involvement of hippocampal (71.43%) was also found, indicated the long-term memory impairment (100%). 2 cases died of respiratory failure during acute phase of illness, and the follow-up results showed that 3 patients (42.86%) left severe irreversible disability the most prominent were mental symptoms (71.43%) and memory or understanding disorder (57.14%). encephalitis belongs to a severe and critical syndrome in viral encephalitis. Serologic examination, coma and status epilepticus may indicate a poor prognosis for severe encephalitis. Besides, the hippocampus is the second most common lesion in the adults with severe encephalitis, which can cause status epilepticus and long-term memory damage especially combined with thalamus involvement. Due to the small numbers in the current study, a large scale clinical trial is required to further confirm these conclusions.

Encephalitis is an acute infectious disease, a mosquito-borne viral infection of the CNS. Encephalitis virus entry into the CNS via the blood brain barrier (BBB), and then causing intense inflammation and neuron death [1]. The incidence of ENCEPHALITIS shows obvious seasonal features, for the main morbidity season were summer and autumn, which characterized by rapid onset and high mortality, it is clinically manifested by high fever, headache, disturbance of consciousness, epilepsy and limb paralysis [2]. According to the World Health Organization, encephalitis is a main cause of severe encephalitis in Asia with 70,000 cases every year, epidemic in north and endemic in south [3], approximately 20-30% of patients die and 30%~50% of the encephalitis survivors will have severe neurological deficits or mental sequelae [4]. With the emergence of global warming, encephalitis may spread extend to other geographic regions? Annual incidence of encephalitis cases varies by viral mutation, endemic regions and age, and children under the age of 15 were even more susceptible to being infected, with more severe and permanent neurological sequelae than adults [5]. With the rise of the vaccination rate of encephalitis the incidence gradually decreased, however, adult outbreaks have begun to appear in some areas in recent years and the specific causes are not clear yet. Predictors of poor prognosis for children have been reported that is characterized by high fever, deep coma, a short prodromal stage, dyspnea, decerebration, and neurological dysfunctions [6]. However, adults with severe encephalitis may manifest a variety of life-threatening symptoms, and there are limited studies on it and prognostic indicators.

REFERENCES

1. Ghoshal A, Das S, Ghosh S et al. Proinflammatory mediators released by activated microglia induces neuronal death in Japanese encephalitis. *Glia*. 2007;55:5, 483-496.
2. Lannes N, Summerfield A, Filgueira L Regulation of inflammation in Japanese encephalitis. *J Neuroinflammation*. 2017;14:1, 158.
3. Wang H, Liang G Epidemiology of Japanese encephalitis: past, present, and future prospects. *Ther Clin Risk Manag*. 2015;11:435-448.
4. Connor B, Bunn W B The changing epidemiology of Japanese encephalitis and New data: the implications for New recommendations for Japanese encephalitis vaccine. *Trop Dis Travel Med Vaccines*. 2017;3:14.

Correspondence to: Alberto Mari, Immunology Research Institute, Maryland, United States, E-mail: alberto_na@za.us

Received: July 2, 2020; Accepted: July 23, 2020; Published: July 30, 2020

Citation: Mari A (2020) Adults with Severe Encephalitis: a Retrospective Analysis. *Immunotherapy (Los Angel)* 6:158. Doi: 10.35248/2471-9552.20.6.158

Copyright: © 2020 Mari A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

5. Campbell G L, Hills S L, Fischer M et al. Estimated global incidence of Japanese encephalitis: a systematic review. Bull World Health Organ. 2011;89:10, 766-774.
6. Kumar R, Mathur A, Kumar A et al. Clinical features & prognostic indicators of Japanese encephalitis in children in Lucknow (India). Indian J Med Res. 1990;91:321-327.