

Poster presentation

Status epilepticus in encephalitis: a study of clinical, MRI and response to antiepileptic drugs

Jayantee Kalita*, Pradeep Pankajakshan Nair and Usha Kant Misra

Address: Department of Neurology, Sanjay Gandhi Post Graduate Medical Sciences, Lucknow, Uttar Pradesh, 226014, India

Email: Jayantee Kalita* - jayanteek@yahoo.com

* Corresponding author

from Infectious diseases of the nervous system: pathogenesis and worldwide impact
Paris, France. 10–13 September 2008

Published: 23 September 2008

BMC Proceedings 2008, 2(Suppl 1):P29

This abstract is available from: <http://www.biomedcentral.com/1753-6561/2/S1/P29>

© 2008 Kalita et al; licensee BioMed Central Ltd.

Background

The severity, response to antiepileptic drugs (AEDs) and outcome may be different in the different groups of encephalitis. There is no comprehensive study on status epilepticus (SE) in encephalitis. Our aim was to evaluate clinical, MRI and response to AEDs in SE patients with encephalitis.

Subjects and methods

Consecutive SE patients with encephalitis were included. Their demographic and clinical history including SE type and duration were noted. Consciousness was assessed by Glasgow Coma Scale (GCS). Blood counts, blood sugar, serum creatinine, bilirubin, transaminases and electrolytes, electrocardiogram, radiograph of chest, cranial MRI and CSF were done. For specific virological diagnosis, CSF IgM ELISA for Japanese encephalitis (JE), mumps, measles, serum IgM ELISA for dengue and CSF PCR for herpes simplex encephalitis (HSE), Coxsackie, polio and EB viruses were done. Patients were grouped as non specific encephalitis if these tests were negative. Response to first, second and third AED were noted and the patients not responding to the second AED were considered refractory. Relation of various clinical, MRI, CSF and the type of encephalitis with the mortality and the refractoriness of SE were evaluated by chi square, Fisher exact and independent t tests.

Results

30 SE patients with encephalitis aged 1–64 (mean 26.2) years were included. Nine patients had JE, 4 HSE, 1 dengue and 16 nonspecific encephalitis. SE was convulsive in 26 and non convulsive in 4 patients. The mean duration of SE was 21(0.83–72) hours. MRI was abnormal in 20 patients. 46.7% patients responded to first AED and 36.7% remained refractory to second AED. In 26.7% patients, seizure continued even after third AED. Response to AED was not related to clinical, MRI and laboratory variables. Out of 9 patients with refractory SE, 1 had HSE, 3 JE, 1 dengue and 4 nonspecific encephalitis. Refractoriness of SE to AED was not related to age ($P = 0.27$), duration of SE ($P = 0.67$), type of encephalitis ($P = 0.45$), cortical involvement on MRI ($P = 0.70$) and CSF pleocytosis ($P = 0.80$). Nine patients died and mortality was related to gender ($P = 0.04$) and GCS score ($P = 0.02$). Death was not related to the type of encephalitis ($P = 0.23$); out of 9 deaths, 6 patients had specific encephalitis (HSE 1, JE 4 and dengue 1) and 3 nonspecific encephalitis.

Conclusion

46.7% SE due to encephalitis responded to first AED and 36.7% remained refractory. One-third patients died which was related to GCS score. Further studies are needed to derive treatment strategy to reduce the mortality.