

Prehospital Diazepam Shortens Duration of Status Epilepticus

[Alleredge B, Wall D, Ferriero P. Effect of prehospital treatment on the outcome of status epilepticus in children. Pediatr Neurol 1995, 11: 213-216.]

This study reviewed 45 episodes of generalized convulsive status epilepticus (SE) due to various etiologies in 38 children to determine the effect of pre-hospital diazepam therapy given either per rectum (PR) (mean dose 0.6 mg/kg) or intravenously (IV) (mean dose 0.2 mg/kg) on seizure duration and patient outcome. Pre-hospital diazepam was received by 19 patients (9 PR and 10 IV). Compared with controls receiving no pre-hospital anticonvulsant therapy, patients who received diazepam experienced a shorter mean duration of SE (32 vs 60 minutes; $p=0.007$), and reduced likelihood of recurrent SE (58% vs 85%; $p=0.045$) and intubation need (41% vs 79%; $p < 0.05$) in the Hospital (Emergency Department). There were no significant differences between PR and IV diazepam anticonvulsant efficacy or complication rates. The authors concluded that pre-hospital diazepam therapy effectively shortens SE duration and lessens the risk for recurrent SE.

Comments

Physicians usually think of the

management of generalized status epilepticus in the context of a clinic or hospital setting; or a Hospital's Emergency Department. In USA where emergency medical care starts with pre-hospital care given by paramedics manning a Ambulance transport team, it is being recognized that initiation of treatment in a pre-hospital setting may offer substantial benefit. The present report is just one of the several current studies which have addressed this issue and found that pre-hospital diazepam reduced the duration of SE and risk of subsequent SE in children.

At the 1995 Annual meeting of American Epilepsy Society, Dr. D.H. Lowenstein, also was of the opinion that pre-hospital diazepam or lorazepam definitely reduced duration of SE, and need for intubation. This opinion is based on findings of their own ongoing community-based study and data published by others. Translated in terms of its relevance to our setup, a convulsing child should be given a dose of diazepam (0.2 mg/kg) at home (by parents), or at the first contact health care facility (by a health worker). Often it may control the seizure. Even if it fails to control the seizure, it still helps in early control of SE in the hospital and offers a protection against later occurrence of SE.

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