

DEBATE: IS AGGRESSIVE THERAPY JUSTIFIED FOR ALL TYPES OF STATUS EPILEPTICUS? YES

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Status epilepticus is a neurological and medical emergency with significant morbidity and mortality. Therefore, building appropriate treatment strategies is very important in order to stop seizures as soon as possible to avoid central nervous system damage.

Status epilepticus have the second place after stroke among neurological emergencies. The incidence of status epilepticus varies between 10-61/100000. Of all the status epilepticus cases approximately 23-43 % of them became refractory status epilepticus. The diagnostic criteria of refractory status epilepticus are still debatable and, in some studies, are based on the treatment steps required to stop status epilepticus (i.e., first or second). Other studies have focused on its duration (i.e., sustained seizures lasting more than 2 h despite treatment). About 10–50% of all status epilepticus cases are classified as refractory status epilepticus.

The etiology of status epilepticus may play an important role in the development of refractory status epilepticus. The most frequently cited causes of status epilepticus include ineffective antiepileptic drug levels in persons known to have epilepsy, various central nervous system pathologies, and other accompanying circumstances like respiratory infection and failure, fever, hypotension, bacteremia, hyponatremia, hyperglycemia, and massive blood loss necessitating a transfusion. The specified status epilepticus subtype may also play a role in the refractoriness of status epilepticus. Nonconvulsive status epilepticus, focal motor status epilepticus, complex partial status epilepticus, and focal secondarily generalized convulsive status epilepticus have been reported as possible predictors.

Status epilepticus cause cerebral damage by various mechanisms. Physiological changes that results in cerebral damage are the most important part of the excitotoxic effects of status epilepticus. Experimental studies showed despite systemic factors such as acidosis and hypoxia are controlled, prolonged status epilepticus ended up with neurotoxic aminoacids and calcium influx. Status epilepticus harms the brain directly through prolonged abnormal electrical activity. Animal data also make it clear that aggressive early treatment is more successful in experimental status epilepticus. The later in the course of the experimental status epilepticus animals treated the poorer the response.

Using forceful treatment protocols for every status epilepticus type is a very important step to increase the rate of success in positive outcome and decrease the negative effects of status epilepticus.