Anticonvulsant effect of amiloride in pentetrazole-induced status epilepticus in mice

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Abstract: Inhibition of sodium hydrogen exchangers (NHE) has been shown to diminish seizure activity in various in vitro and in vivo models of epilepsy. In the present study, we examined the effect of amiloride, a sodium hydrogen exchanger inhibitor, against pentetrazole (PTZ)-induced status epilepticus (SE). The study was conducted in mice and status epilepticus was induced by administering ip 50 mg/kg of phenytoin followed 2 hour later by PTZ, 100 mg/kg sc. Amiloride produced dose-dependent protection against PTZ-induced SE.

Key words: amiloride, pentetrazole, status epilepticus, sodium hydrogen exchanger, mice