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Antiepileptic effects of *Allium schoenoprasum* L. in the acute epilepsy model in rats

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Epilepsy is a chronic clinical disorder and does not have a rational treatment, which basically aims to prevent seizure activity. Therefore, developing new treatment strategies that can intervene in epileptogenesis will make important contribution to epilepsy treatment. In order to find new compounds and develop new treatment strategies, here, we explored the potential antiepileptic effects of *Allium schoenoprasum* L. commonly known as chives. Two different epilepsy models were used to study the potential antiepileptic effects of *A. schoenoprasum* L. The first epilepsy model was induced by intracortical injection of 500 IU penicillin. The second epilepsy model was induced by injecting pentylenetetrazol (PTZ) at the dose of 60 mg intraperitoneally (i.p.). In the penicillin model, the animals were given *A. schoenoprasum* L. extract (200 or 400 mg/kg i.p.) after penicillin was applied and electrocortical activity was recorded for 120 min. In the PTZ model, the animals were given *A. schoenoprasum* L. extract at doses of 200 or 400 mg/kg orally for 7 days, after which the PTZ was applied, and tonic-clonic seizures were video recorded. *A. schoenoprasum* L. did not significantly change either the spike frequency or amplitude in the penicillin epilepsy model. Although it did not change the seizure score in the PTZ epilepsy model it reduced the death rate and significantly decreased the tonic-clonic seizure duration. The result suggests that *A. schoenoprasum* L. may have antiepileptic effects when applied chronically.

Keywords: Antiepileptic drugs, Chives, Herbal, Seizure, Traditional medicine