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Zonisamide Therapy for Idiopathic Epilepsy in 12 Dogs

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Seizure disorders represent the most common neurological problem in dogs with the majority of cases attributable to idiopathic epilepsy. Idiopathic epilepsy is recurrent seizure of unknown origin or cause. Although most epileptic dogs are managed effectively with "standard" (e.g., phenobarbital, bromide) anticonvulsant drugs, approximately 25% to 30% are refractory to appropriate doses of these drug. The purpose of this investigation was to evaluate the efficacy of zonisamide as an alternative anticonvulsant in dogs with idiopathic epilepsy.

Twelve dogs with idiopathic epilepsy were entered into a study. Oral zonisamide was administered as an alternative therapy at a dosage of 5~10 mg/kg PO *q* 12 hours to achieve serum drug concentrations of 10 to 30 microg/mL. Seizure frequency since the administration of zonisamide therapy was recorded and serum zonisamide concentrations were measured.

Six (58.3%) dogs responded favorably, experiencing a mean reduction in seizure of 70.67%. Two (16.7%) dogs had same seizure frequency compare to before initiation of zonisamide therapy. The mean dosage of zonisamide required was 7.06 mcg/kg *q* 12 hours. The mean serum drug concentration of zonisamide was 8.68mcg/mL. Two dogs had an increase in seizure frequency. Mild dose dependent side effects (e.g., anorexia, depression, vomiting) occurred in five dogs.

In this investigation, zonisamide appeared to be effective alternative anticonvulsant in dogs with idiopathic epilepsy.

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