

INDICADORES DE EPILEPSIA

- crisis corta
- actividad del SN autónomo
- rigidez
- crisis estereotipadas
- alteración del comportamiento antes o después
- respuesta

PUEDEN PARECER EPILEPSIA

- CECS (Canine Epileptoid Cramping Syndrome)
- Cavalier Episodic Falling syndrome (EFS)
- otros

DIAGNÓSTICO ERRÓNEO: NO ES EPILEPSIA

Table 1 Disorders that can be mistaken for seizures			
Disorder	Timing of Episode	Description	Other Findings
Syncope	Exercise, excitement, or cough	Brief collapse with loss of consciousness, no or only mild abnormal movements, no postictal abnormalities	Evidence of heart disease, arrhythmia
Cataplexy/narcolepsy	Excitement such as play or food	Brief collapse with absent muscle tone	Induce attack with food
Neck pain	Movement or activity	Crying, cervical rigidity and tremor, no loss of consciousness	Pain on neck palpation/manipulation
Vestibular dysfunction	Variable	Ataxia, abnormal nystagmus, disorientation, no loss of consciousness	Positional nystagmus or other signs of vestibular disease
Metabolic encephalopathy	May be post prandial	Abnormal behavior, depression, ataxia usually lasting an hour or more	Elevated bile acids or other laboratory abnormalities
Idiopathic head tremor	Spontaneous	Head tremor with no loss of consciousness, otherwise normal gait and behavior, lasting several minutes	Most common in English bulldogs, Doberman pinschers, boxers, and Labrador retrievers
Generalized tremor syndromes	Spontaneous	Generalized tremor with no loss of consciousness or autonomic signs	Steroid-responsive tremor syndrome is most common in young, small-breed dogs; history of exposure to mycotoxin (moldy dairy products), metaldehyde, or insecticide
Exercise-induced weakness	Exercise	Short-strided gait, kyphosis, tremor, collapse, no loss of consciousness	Induced attack with exercise
Compulsive disorders, stereotypy	Situations of anxiety, conflict, or frustration	Pacing, circling/spinning, rhythmic barking, chasing real or imaginary objects, licking, chewing, hair pulling, no loss of consciousness	Detailed behavior history may identify triggering situations
Feline estrus behavior	Associated with estrus	Howling, rolling, treading with pelvic limbs, lordosis	Intact female
Myoclonus	Episodic or continuous	Sudden, shocklike contraction of a single muscle or muscle group, may be rhythmic	May persist with sleep or anesthesia

OTROS PROBLEMAS: INTERACCIONES MEDICAMENTOSAS

- Tetraciclinas, metronidazol y clomipramina pueden aumentar el riesgo de convulsiones
- Fenobarbital y bromuro potencian a otros depresores del SNC
- Fenobarbital disminuye el efecto de cloramfenicol, corticosteroides, doxiciclina, griseofulvina, beta bloqueantes, quinidina, teofilina, y metronidazol

fármaco	dosis	vida media	nivel estable en suero	rango terapeutico
Fenobarbital	1-3 mg/kg/12 h	32-89 h	10 a 18 días	15 a 45 mg/dl
Bromuro K	30-80 mg/kg/24 h	25 días	125 días	100 a 300 mg/dl
Levetiracetam (keppra)	10-20 mg/kg/12 h	2-4 h	1-2 días	5 a 45 µg/ml
Zonisamida	5-10 mg/kg/12 h	17 h	3-4 días	10 a 60 µg/ml
Gabapentina	10 mg/kg/8 h	3-4 h	1 día	4 a 16 mg/l
Pregabalina	4 mg/kg/8 h	3-4 h	1 día	2.8-8.2 µg/ml
Felbamato	20 mg/kg/8 horas	4-6 h	1-2 días	30-100 mg/l

Table 1: Elimination half-lives and dosages of anticonvulsant drugs used in dogs.

Drug	Elimination half-life	Dose
Phenobarbitone	42–89 hours ¹²	2–4 mg/kg p/o bid ^{2,12}
Potassium bromide	24 days ¹³	10 mg/kg p/o bid ¹³
Primidone	5–10 hours ⁴	5–10 mg/kg p/o bid ⁴
Clonazepam	Dose-dependent ⁴	0.5 mg/kg p/o tid ⁴
Chlorazepate	5 hours ⁴	2 mg/kg p/o bid ⁴
Valproic acid	1.5–2 hours ⁴	10–60 mg/kg p/o tid ⁴
Diazepam	1–2 hours ⁷	Not applicable
Carbamezapine	1–2 hours ⁴	40 mg/kg p/o tid ⁴

p/o = *per os*; bid = twice per day; tid = 3 times per day.

Table 2: Guidelines for therapeutic monitoring of phenobarbitone and potassium bromide.

Drug	Time to steady state	Monitoring intervals	Peak serum concentration^b	Therapeutic serum concentration
Phenobarbitone	15 days ¹⁰	15, 45, 90, 180, 360 days ^a and then every 6 months ¹²	4–8 hours ^{7,11,12}	20–40 µg/ml ^{4,7,9,12}
Potassium bromide	150 days ¹³	30, 120 days ^a and then every 6 months ¹³	Not applicable	0.7–2 mg/ml ^{2,12,21}

^aAfter starting treatment.

^bTime taken after oral drug administration for the drug to reach peak serum concentrations.

TABLE 1

Characteristics of the New Antiepileptic Drugs Used to Treat Canine Epilepsy

Drug	Dosage	Mechanism of Action	Time to Reach Steady-State Concentrations*	Hepatic Metabolism	Side Effects	Cost**
Felbamate	15–60 mg/kg PO t.i.d.	Inhibits glutamine by blocking calcium channels; potentiates GABA	25–40 hours	Yes	Sedation, ataxia, blood dyscrasias, vomiting, hepatic disease	\$200
Gabapentin***	10–20 mg/kg PO t.i.d. to q.i.d.	Inhibits voltage-gated calcium channels	10–20 hours	Yes, partial	Sedation, ataxia	\$20
Pregabalin	2–4 mg/kg PO t.i.d.	Inhibits voltage-gated calcium channels	30–40 hours	Yes, partial	Sedation, ataxia	\$200
Zonisamide***	5–10 mg/kg PO b.i.d.	Inhibits voltage-gated calcium and sodium channels	75–100 hours	Yes	Sedation, ataxia, vomiting, loss of appetite	\$25
Levetiracetam***	20 mg/kg PO t.i.d.	Binds to a synaptic vesicle protein, modulating release of neurotransmitter	15–20 hours	No	Sedation, ataxia	\$75

*Steady-state concentrations are achieved in about five half-lives.

**Approximate cost of the drug obtained from a commercial pharmacy based on a 25-kg dog administered the drug at the low end of the recommended dosage.

***Generic form available.