

## SEIZURES IN ANIMALS

The terms seizure, fit, convulsions and epilepsy are used to describe a group of disorders in people and animals that cause abnormal body movements, loss of consciousness, abnormal behavior, involuntary urination and defecations, or any combination of the above. These disorders are symptoms of a central nervous system disturbance. This disturbance causes a massive stimulation of all the nervous system which in turn causes the seizure.

There are many causes of seizures in animals. Of course we see some more frequently than others. We divide the causes of seizures into two groups. The first group is acquired seizures. Acquired seizures are caused by damage to the brain either temporarily or permanent.

- a) Viral infection (Viral encephalitis). Distemper is the most common.
- b) Bacterial infection (Bacterial encephalitis).
- c) Metabolic changes
  1. Low blood oxygen-usually causes fainting but can cause seizure. Heart and lung diseases are the primary cause.
  2. Low blood sugar.
  3. Low blood calcium-seen frequently in nursing bitches (i.e. milk fever, eclampsia).
  4. Chemical poisoning, drug abuse.
  5. Uremia-loss of kidney's ability to cleanse blood.
- d) Traumatic damage to the brain, (i.e. concussion).
- e) Tumors of the brain-usually causes other accompanying symptoms.
- f) Fungal infection-Cryptococcosis.
- g) Protozoan infection-Toxoplasmosis.

The second group of seizures are congenital in origin. With this group of seizures researchers find that these are apparently associated with genetic transmission.

- a) Hydrocephalus (water on the brain) usually seen in the very small breeds of dogs.
- b) Idiopathic epilepsy: We find this to be the most common cause of seizures in dogs. The word idiopathic means "of unknown cause". There are many theories but nothing proven. With this type of seizure the animal appears to be completely normal except for the occasional seizure. The dogs rarely have the first seizure before maturity, say about two years. The actual seizure is usually of the Grand Mal type and lasts for a period of several minutes. Once in awhile an owner will note that the dog will be apparently able to anticipate the seizure shortly before it happens. Very often after the seizure ends the dog will be confused, wobbly and may bump into things as if it cannot see. This period may last for an hour. By carefully noting the dates and times of the seizure, we find that some dogs have seizures at fairly regular intervals.

## DIAGNOSIS

Diagnosis in cases of epilepsy can be difficult considering all the various things that can cause seizures in the dog. In discussing the problem with the owner, the veterinarian will take a careful history and give the dog a thorough physical examination. In some cases, we may feel it necessary to take blood and urine samples for laboratory studies