

Diagnosis of Canine Epilepsy : Plain and Simple*

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There seems to be some confusion about the procedure for diagnosing idiopathic epilepsy so I will share what I have learned from experience in the hopes this will help.

I believe the confusion comes because there is no positive test for epilepsy. It is a diagnosis by default, meaning all other causes have to be first eliminated in order to arrive at a diagnosis of idiopathic epilepsy. Idiopathic epilepsy also referred to as primary epilepsy, means no underlying causes for the seizures can be found. Secondary epilepsy is when an underlying cause for the seizures has been identified such as a brain tumor.

Some veterinarians are not experienced in dealing with epilepsy and this unfamiliarity makes it difficult for them to identify epilepsy. Toby was seen at three different hospitals by three different veterinarians while experiencing a partial seizure and none of these doctors recognized what they were seeing. Further confusion occurs because doctors do not always perform all of the tests necessary to give an actual diagnosis. In my opinion, all the tests are not performed because they are expensive and are not necessarily needed to begin treating a dog for epilepsy.

Since epilepsy is a diagnosis by default it is very costly to run all the tests necessary. Many pet owners do not have pet health insurance. Since you are dealing with pets and not children (though for most of us they are our "fur kids") it becomes up to the pet owner to decide whether or not they want to or can afford to spend the money for all of the necessary testing. For a finding of idiopathic (primary) epilepsy the doctor must be able to state that no underlying disease or cause can be found for the seizures. Without all the testing, you can only come to a presumptive diagnosis. Some refer to it simply as a case of suspected epilepsy.

Doctors are very aware that many people cannot afford the brain imaging tests, and yet, they still want to be able to treat the pet. The doctor may explain to the pet owner, as ours did, that based on all the tests being within the normal range, he is almost certain it is idiopathic epilepsy, though he can't be completely certain unless he runs the more costly tests of brain imaging and a spinal tap. The doctor may also explain, as ours did, that the choice is up to you. He can begin treating for idiopathic epilepsy without these added tests because if it is in fact epilepsy, the dog usually responds positively to the medications after they reach therapeutic levels in the blood. If it is not epilepsy and is something else then other symptoms or neurological or clinical signs will occur indicating that there may be another cause for the seizures. If so, the doctor should then advise you that the other tests are necessary. Of course it is still up to you, the owner of the dog, as to whether or not you will agree to run these additional and more costly tests. I believe most pet owners do want to know what is wrong but, unfortunately, simply cannot afford it. The doctor is concerned about treating the dog. If the more costly tests were required for treatment, many owners would have to put their pets to sleep.

The basic tests that are done are a blood chemistry panel, CBC (complete blood count), and possibly urinalysis. A Bile Acid test is done to check for a liver shunt which is immediately

suspected as being the cause of seizures in the case of very young puppies. A neurological and physical exam is also performed. A case history is taken as to when, where, and how the dog is manifesting, all to try to determine why. The basic tests are performed either by a primary care veterinarian, emergency care veterinarian, or a veterinarian neurologist. Depending on the results of all the blood work, examination and answers to the questions, the doctor also determines if any other testing is necessary, such as tests for specific toxins, viruses, bacteria, or parasites. Evidence may have shown up on the basic tests or there will be some other indicator that further tests need to be done to rule out these other possible causes of seizures.

The brain imaging tests, MRI or CT scan and CSF tap, must be performed in order for an actual diagnosis of idiopathic epilepsy to be given not merely a suspected or presumptive diagnosis. An MRI can cost up to \$1500.00. A spinal tap usually runs around \$600.00-\$800.00. If the owner opts out of the MRI and spinal tap because of the expense, they cannot receive an actual diagnosis, only a presumptive or suspected one, yet treatment for epilepsy may still begin.

Even though our doctor was very certain Toby had epilepsy and was willing to treat him without the more expensive tests, we chose to have the spinal tap and MRI performed because it was the only way we could truly know there was no other underlying cause for his seizures. We wanted an actual diagnosis and the greater certainty of what we were dealing with. In addition we didn't want anyone telling us it wasn't epilepsy just because we were lacking a test.

If we want information that is as reliable as possible as to which animal does have idiopathic epilepsy, then we have to insist on the actual diagnosis. If we do that, we are requiring an owner spend a considerable amount of money and a dog be subjected to tests he does not necessarily need for treatment.

There is a lot for all of us to do to defeat canine epilepsy. Until there is a positive test to diagnose canine epilepsy and a screening test to identify carriers of this cruel disease, we need to all work together to help eliminate the disease. We need to share information so breeders can make more informed breeding choices. We need to donate DNA/blood samples for research so a gene marker can be found. We need to ensure a diagnosis is reached so no one can say a dog does not have epilepsy. We must not use the lack of tests as an excuse not to face the problem and to avoid taking responsibility for it. If someone needs financial assistance to reach a diagnosis, we should help them whenever possible. It is the mission and calling of Toby's Foundation to help ensure these things are done.

**Only a veterinarian can diagnose epilepsy. This article is not intended to diagnose epilepsy. For diagnosis and treatment of epilepsy, please consult a veterinarian.*