

From: "Jility" <jility@tds.net>
Date: Wed, 17 Nov 2004
Subject: [AgilityPoodle] Barbara Licht Comments on Seizures

Recently, Barbara Licht was kind enough to answer a lot of questions I had regarding seizures. I thought the people on the list might also find it as fascinating as I did. I asked her permission and Barbara said it was OK for me to post our exchange on the lists. I hope it will help some of you as much as it helped me to understand seizures.
Helen King

At 12:54 PM 11/15/2004 -0800, you wrote: Dear Barbara, Thanks so much for your email. I can't tell you how much I appreciate your advice and support! Isabella has also been on Prilosec OTC for her stomach acid and I read that seizures can be a side effect. I wonder if that has anything to do with it as well. What about her episodes of checking out? She just looks a little confused and distant for a minute or so then she is OK again. I took her off the Prilosec because it was making her lethargic and she was having trouble digesting bones. She is happier but I hope her throwing up doesn't return soon. She is a project but worth the effort. I adore her. Good luck with your new one! Helen

-----Original Message----- From: Barbara Licht [mailto:
<mailto:blicht@darwin.psy.fsu.edu> blicht@darwin.psy.fsu.edu] Sent: Monday,
November 15, 2004 5:59 PM To: <mailto:jility@tds.net> jility@tds.net
Subject: Re: Re: PSG: More seizures
Helen,

You are most welcome--feel free to ask questions anytime. Unfortunately, I won't always have answers.

There is no way to know for sure if the Prilosec helped to trigger her most recent seizure episodes, but it is certainly possible. Hopefully, she'll be able to get by without the Prilosec. But there are times when a dog with seizures has no option but to take a medication that can trigger seizures in order to deal with some other major medical problem. I know that I sometimes gave my epileptic poodles the antibiotic Baytril even though a possible side effect was seizures. Fortunately, the Baytril worked on their infections without causing any seizures. But it was a risk I needed to take. When dogs (or people) have multiple medical problems, you often are faced with a Catch 22. If she does start to throw up again, maybe your veterinarian can prescribe something else that doesn't have seizures as a possible side effect.

Regarding the episodes of her checking out, that too is hard to call because there is little evidence from research that dogs have the kind of seizures that involve only a brief "checking out." These are reported frequently in humans, particularly children, and they are called "absence" seizures. I do suspect that dogs have these, but most owners wouldn't recognize these unless they are really tuned into their dogs like you are. So in light of the fact that Isabella is prone to seizures, I suspect that these checking out episodes may indeed be absence seizures. Still, there is no practical way to know for sure. The only way to know for sure is to hook her up to a portable electroencephalogram (EEG) to monitor her brain waves for a few days and try to catch an episode to see what is going on in the brain at that moment. We certainly wouldn't want to put sweet Isabella through that <grin. She is so lucky to own you!

My Best, Barbara

At 07:28 PM 11/15/2004 -0800, you wrote: Thanks again Barbara. The first time I ever noticed Isabella check out was in an agility class two years ago. That was a year before I witnessed her larger seizures. She definitely checks out like nobody is home. I am convinced now that they are the "absence" seizures you mentioned. Tell me, in the humans who have those seizures, do they also have grand mall seizures or are their seizures more mild like Isabella's? It would be interesting to compare the similarities.
Helen

-----Original Message----- From: Barbara Licht [mailto:
<mailto:blicht@darwin.psy.fsu.edu> blicht@darwin.psy.fsu.edu] Sent: Tuesday,
November 16, 2004 5:49 AM To: Jility Subject: RE: Re: PSG: More seizures

Helen,

I too strongly suspect that her checking out episodes are seizures, and your description does indeed sound similar to absence seizures. However, inside her brain, they might look more like the kind of seizure that Isabella typically has, which if my memory serves me, would be called "partial" or "focal" seizures because they appear to only involve *one* hemisphere (half) of the brain. The excellent question you posed below regarding humans with absence seizures made me go back to your description in Saturday's post of her checking out episode. After re-reading it, I'm inclined to think that it was just a variant of her more typical partial/focal seizures. With true absence seizures, the recovery is instantaneous. That is, as soon as they regain focus (after 10 to 60 seconds of being totally "gone") they are 100% normal. There are no lingering effects of an absence seizure once it is over. In contrast, from what you described, she didn't seem totally normal until later that afternoon. This makes me think that her checking out episodes are a type of partial/focal seizure rather than an absence seizure. (I'm working at home now and don't have her file with me. But in the next couple days, I'll look up your prior descriptions of her seizures to refresh my memory and let you know if I read anything that leads me to change my mind.)

To answer your question about humans with absence seizures, some of these people only have absence seizures, but quite a few also have grand mal seizures. Both absence and grand mal seizures involve *both* hemispheres of the brain, even though absence seizures look so much less severe. While there are exceptions to ALL rules, generally humans that have absence seizures don't also have partial/focal seizures. That is why your question led me to take a fresh look at your description of her checking out episode. Communicating with owners of poodles with seizures is a two-way learning experience--I often learn a great deal from them <smile.

Barbara

At 03:53 PM 11/16/2004 -0500, you wrote:

Thank you Barbara! I too am learning a great deal. So, my next question (you are going to be sorry you said I could ask), would be, why do some have both side seizures and others one side? I thought by definition, a seizure was an electrical malfunction between the two sides of the brain. (Star Wars

of the brain). Do you think it is possible the infection caused the partial seizures? What is the typical progression of partial seizures? What happens to humans with partial seizures? If they train dogs to be seizure alert dogs, I should train Isabella to tell me when she is going to have a seizure. This whole thing is fascinating to me. Helen

-----Original Message----- From: Barbara Licht [mailto:blicht@darwin.psy.fsu.edu] Sent: Wednesday, November 17, 2004 6:27 AM To: jility@tds.net Subject: Re: PSG: More seizures

Helen,

This is another great question (and I'm not at all sorry that I said you could ask <smile>). In the past, it was commonly believed that only seizures occurring in both sides of the brain simultaneously (called "generalized" seizures) could be due to inherited idiopathic epilepsy and that seizures occurring on only one side of the brain were necessarily due to something else, such as a brain infection or head injury. This belief was based on the fact that when seizures are known to occur from a head injury or brain infection, they generally begin on one side of the brain. After all, when one gets a severe knock on the head, or an infection attacks the brain, it rarely damages the brain in exactly the same way on both sides. Usually, it affects one side more than the other, so the seizures begin on the side that is most affected (and may or may not later spread to the other side). However, with recent advances in genetics, we now know that partial seizures also can be due to inherited idiopathic epilepsy. In fact, with human epilepsy, the very first gene that was identified as contributing to idiopathic epilepsy was for a specific type of partial seizures. Unfortunately, a large number of veterinarians and even some human neurologists still believe that partial seizures are never due to inherited idiopathic epilepsy. It appears that partial seizures from idiopathic epilepsy are due to different genes than are generalized seizures from idiopathic epilepsy, and different kinds of partial seizures are also due to different genes. But both partial and generalized seizures can result from inherited idiopathic epilepsy.

With regards to my own research, a great many poodles with idiopathic epilepsy have partial seizures. They vary in nature, but many do look just like Isabella's seizures. Importantly, seizures that *begin* in one side of the brain often spread to the other side of the brain within the same episode. When this occurs, we say that the seizure was a "partial onset seizure that secondarily generalized." The partial onset of the episode can be long (even up to 30 minutes) or so short (just a few seconds) that the owner never even notices that the episode began as a partial seizure. They may simply report that their dog had a grand mal seizure. The grand mal seizure is the only kind of generalized seizure commonly reported in dogs. As mentioned in an earlier message, absence seizures are also generalized seizures, as are some other kinds of seizures (atonic, myoclonic) that are rarely, if ever, reported in dogs.

For some dogs and people with partial seizures, the only seizures they will ever have in their entire lives will be partial seizures. That is, their seizures will never spread to both sides of the brain. However, some people and dogs that have only partial seizures when their epilepsy first begins can, over the months and years, begin to have partial onset seizures that secondarily generalize. There is no way to predict if this will occur. But

this is another reason to start medication if you see any signs that Isabella's seizures are getting longer in duration, more frequent, or more intense.

It is certainly possible that one of Isabella's dental infections got to her brain and caused some damage. However, there is no way to know this for sure. Given the high incidence of epilepsy in poodles, and the fact that her first seizures didn't come on like gangbusters, my best "guess" (and I do mean "guess") is that she has inherited idiopathic epilepsy. When seizures are due to a brain infection, the first few seizures come close together and are pretty severe. I haven't had a chance to review her file yet, but I don't recall that her first few seizures came on like gangbusters. Is that correct? Do you recall how far apart in time her first 3 seizures were?

Regarding alerting owners to one's own seizures, many dogs with epilepsy actually do alert their owners by coming over to them and acting scared at the very beginning of their seizure episodes, but some don't have the body control to do that and some are already right next to the owner when it occurs.

As an aside, no one knows how to train a dog to become a seizure "alert" dog that knows when a seizure is going to occur BEFORE it begins. Some dogs do this naturally, but we don't know how to train it since we don't know what seizure alert dogs are responding to. One can train dogs to be seizure "response" dogs--that is, respond when their owner's seizure episodes are actually beginning. This can be trained because we humans can actually see or hear the first signs of a seizure. This still can be incredibly useful even if the dog cannot predict a seizure before it ever begins.

Hope this clarifies your questions, and again, feel free to ask more.
Barbara

Dear Barbara

One more question. You once told me that in order for a dog to have a seizure, they must have the gene(s) for it to happen regardless of the cause. In other words, even if Isabella's mouth infection did go into her brain, in order for her to have a seizure from it, she would have to have the genetic make-up for seizures. Did I understand that correctly?
Helen

Yes, based on the most recent research with human epilepsy, that seems to be the case. However, the genetic make-up that leads to seizures in the absence of any insult to the brain may be different than the genetic make-up that leads to seizures in the face of a major insult to the brain. But it does seem to be the case that there is **some** genetic predisposition in most all cases of epilepsy. After all, not all individuals that experience a major insult to the brain (such as a bullet in the head, or a major brain infection) develop seizures. I'm assuming that what applies to human epilepsy also applies to canine epilepsy.

My Best, Barbara

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