CANINE SEIZURE DISORDER: A FRESH LOOK AT CLINICAL MANAGEMENT

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Proceedings of a Panel Discussion

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Preparing the Owners *of a Seizuring Pet*

Dr. Gloyd: Our discussion is going to focus on what can be an extremely frustrating condition: seizures in dogs and cats. Let's include some of the issues that are often overlooked. Knowing that seizures are frightening events to most pet owners, we all realize that preparing them for what to expect is key to successful management. How do you start the conversation with owners of pets that have had one seizure?

Dr. Rogers: The first thing I like to let owners know is that their pet is not in pain. It is really disheartening for a client to sit and watch a seizure. But we know from humans who have seizures that they never say they are in pain. Some dogs yelp when they are having a seizure, but we reassure the client that when they wake up, they don't know what happened. They don't know they have epilepsy, and it is not really a quality of life problem for the dog.

> *The first thing I like to let owners know is that their pet is not in pain."*
>
> — Dr. Robert Rogers

Clients need to know this because it's going to take some time to get the dog regulated on the proper medication and dosage and bring the occurrence of seizures to an acceptable level. We tell owners that we can't cure epilepsy, we can just control it. I also tell them that it's going to take some blood testing and some trial and error to get the levels of the phenobarbital or potassium bromide where we want them. And I advise them that there is expense involved in the management.

> *Researchers found that the frequency of seizures was the one thing owners were most concerned about."*
>
> — Dr. Fred Wininger

Dr. Wininger: I think the initial conversations are very important. During the first conversation that I have with clients, I make sure they understand the idea that a seizure itself is not a disease but is a clinical sign or a symptom of a much greater disease process. And, certainly, idiopathic epilepsy is going to be the #1 disease process we think of in these dogs and cats, but we must be familiar with some of the other metabolic and structural brain diseases that can cause these events. Once that has been established, then we talk about our expectations. In a recently published study that evaluated owner-perceived quality of life, researchers found that the frequency of seizures was the one thing owners were most concerned about – more than seizure severity or even cluster events. I think that really speaks to us as practitioners: reduce frequency and set realistic expectations with effective seizure management.

Preparing the Owners of a Seizuring Pet

Dr. Moeser: In terms of setting expectations, I believe it is so important to let clients know that just because their pets are starting an anticonvulsant doesn't guarantee that the seizures are going to be completely abolished. If owners go into it thinking that with medication there aren't going to be any further seizures, they are going to be very disappointed, and they'll be more likely to give up on certain medications too early.

As an example, I currently have a case where communication has been paramount. It's a 3-year-old neutered male Great Dane that started having generalized tonic-clonic seizures shortly after a year of age, and he is currently having a grand mal or a generalized seizure every 1 to 2 weeks. That is difficult for the client to witness. And this dog is currently on four anticonvulsants: phenobarbital, potassium bromide, zonisamide, and levetiracetam. We have used drugs like diazepam or clorazepate for pulse therapy and, really, nothing has made a significant difference.

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Dr. Platt: As a comment on what has already been said, I think it is extremely important for us to spend a little bit longer with these clients than we would normally for other conditions. We need to put that initial communication with the owner front and center, developing the relationship, and warning that, "This is going to be a roller coaster." We want them to be ready for the difficulty that they are going to encounter. There will be frequent visits to primary veterinarians and to us. We need to be sure that the owners realize this is part of the initial management stage, not necessarily to put them off but to make sure they know that, when they do have problems, they are expected. For a neurologist, it is extremely important to have that relationship with the owners and primary veterinarian. This team approach is going to help the owners buy in a little better about lifelong management of the condition. Owners will trust their primary veterinarian more than they are going to trust us.

Was It a Seizure?
Reaching a Definitive Diagnosis

Dr. Gloyd: I know you recommend a specific diagnostic workup for the seizuring patient. What is the minimum database that you want to see for these animals?

Dr. Platt: The first thing is almost to take a step back and be comfortable that the patient actually had a seizure. Therefore, I am going to say that the most important component of the database, which may be the most difficult task of all, is to try and get a video of the patient during an event. These days, especially if there is a teenager in the house, there is usually video capability. Owners may describe what they think is a seizure event, sometimes in fine detail, but we need to be certain. So, the first part is being sure that you are dealing with a seizure, because once you start the pet on a medication, it is potentially a lifelong commitment.

Also, we might be treating something else that looks like seizure activity. Syncope, for instance, is going to be an important differential as well as some of the sleep disorders, narcolepsy, and neuromuscular collapse. We need to know for certain, so I add video into the minimum database. There are obviously the more routine tests that we recommend as well, but I want to emphasize the point about video because it has really helped us dramatically.

Dr. Wininger: I agree that videos have literally changed the way we practice, because now we have a lot more certainty before we initiate treatment. For my part, a complete blood count and blood chemistry are necessary to establish a baseline before starting treatment and as essential monitoring tools. We like to have a bile acid test as well, particularly in younger animals. An ammonia tolerance is also acceptable, because we want to rule out the possibility of a metabolic encephalopathy, particularly a portosystemic shunt and hepatic encephalopathy. I think that is an important baseline, particularly if I am going to prescribe drugs that are going to be metabolized by the liver.

Additionally, if phenobarbital is going to be a drug that we consider as the first-line agent and this is a dog that has a predisposition or even clinical signs suggestive of hypothyroidism, it's good to get a thyroid baseline as well, prior to initiating therapy. Phenobarbital can change our ability to monitor the disease.

Dr. Platt: I agree with those points and just want to step in and make another important point that no one has mentioned yet: MRI. Seizures don't equal MRIs straight out of the gate. We look at causes of seizures as being disorders that could be inside the head – obvious brain diseases like tumors or inflammations. But there are many diseases outside of the head: toxicities, some metabolic diseases like hepatic encephalopathy, and half of the time nothing – idiopathic.

> *"Seizures don't equal MRIs straight out of the gate."*
>
> — Dr. Simon Platt

Wait or Don't Wait . . . *When Do We Start Medication?*

Dr. Gloyd: Because there are many considerations, when to start medication for a seizuring pet is often a difficult decision. Dr. Moeser, when do you start?

Dr. Moeser: If a patient has only had one seizure with no evidence of a structural problem and it is idiopathic epilepsy, I am probably not going to start an anticonvulsant after that single, first seizure. You definitely have time to try to confirm that it is indeed a seizure. And we know that, as with pediatric medicine, in veterinary medicine you will see young patients that have seizures. It may be a reactive seizure, the pet may have been exposed to a toxin and the owner didn't know about it, and that pet may never have another seizure. If you start the pet on an anticonvulsant and it never has another seizure, you do not know if it is because of the medication. It may be that it never actually needed that drug. There are certainly side effects from the anticonvulsants, so I communicate to the owners that we want to be sure that this medication is necessary from both a quality of life perspective and a cost perspective. It is worth waiting.

> *"We want to be sure that this medication is necessary from a quality of life perspective as well as a cost perspective."*
>
> — Dr. Adam Moeser

In terms of when to start, if the pet has had a cluster event or a status event and I cannot identify a metabolic or toxic reason for that seizure, or if the pet has had more than a single seizure in a six-month period, I'm definitely going to recommend starting anticonvulsants. Or, if I have reason to recommend an MRI, for example, asymmetry on the neuro exam causing concern about a structural problem, even if the pet has had one seizure and I find something on the MRI or a tap to suggest that it's not just idiopathic epilepsy, then I would recommend starting an anticonvulsant.

Dr. Wininger: Among members of ACVIM, I don't know that there is any discussion more controversial than when to start seizure medication. I think it's because there is a lack of evidenced-based medicine to really say how medication is going to affect the seizure frequency, the quality of life, or longevity. I believe most of us rely on the rule of thumb of 3 months as an ideal seizure interval. Even our best drugs struggle to get better management than that.

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Wait or Don't Wait . . . *When Do We Start Medication?*

Dr. Platt: We can agree on general rules as to initiation of medication. But we also need a sliding scale, and this is where we have a conversation with the owner about how many seizures a month or a year warrant the initiation of medication. What is acceptable varies with each client. And this has changed. We know the more seizures a pet experiences, the more it is going to have. Some pets are having one a month and I'm starting medication, some pets one every six months.

We explain that once the pet is on medication, it is for life and can be a bit of a roller coaster. There is some labor intensity involved in return visits to the veterinarian, and there may be blood tests as well. I also discuss the medication's toxic side effects and the cost of medication and management versus the benefits. One seizure every 6 months is okay for most owners but we should start talking about the prospect of initiating medication. One seizure every 3 months is when I would start medication.

Dr. Gloyd: I want to pursue one comment that you just made: "the more seizures a pet experiences, the more it is going to have." Doesn't that argue for starting medication earlier rather than later?

Dr. Platt: There is the perception in human medicine that the sooner you start medication, the better. The difficulty is trying to find the point where you are comfortable starting the medication. Does the condition justify initiating the medication? I think it is important to start early, but we must make sure that it is warranted. We must make sure we have some sort of pattern to the seizure frequency as well so that we know the medication is working or not working.

There are some breeds that we all recognize and are documented in the literature that have more severe seizures than other breeds. Australian Shepherds, for instance, and Border Collies. If I see a 2-year-old Aussie or Border Collie that has started having seizures, I'm probably going to be a little bit more aggressive. And in addressing one of what I am sure is among your near-future questions, I will throw out a very contentious point: in some of those dogs, I start two medications up front, because we know that there is a high chance of those dogs getting out of control very quickly. I am happier to back off one of the medications if we've got the dog under control than to try and play catch-up. Breed is an important part of decision-making.

> *"We must make sure we have some sort of pattern."*
>
> — Dr. Simon Platt

Dr. Wininger: The genetics of seizures is important but really complicated. This is not the Mendelian genetics of breeding a white flower with a red flower and getting a pink flower. There certainly are certain breeds that have been described, Vizslas and Keeshonds and a couple of others, where if I see one littermate start epileptic seizures, I might be more inclined to treat the others more aggressively. But having a littermate have seizures in and of itself, for me, wouldn't be an indication to treat any more aggressively than I otherwise would.

Wait or Don't Wait . . . *When Do We Start Medication?*

Dr. Gloyd: Dr. Rogers, when you are convinced that you have a seizuring animal, what are your next steps?

Dr. Rogers: I like to start seizuring dogs on medication early, with the second seizure or a cluster seizure, and I communicate that to the client. I believe that the sooner you get the seizures under control, the easier it is going to be in the long run. And I also want the clients to know that their dog's personality is not going to change. That is important to them. The dog is not going to be a zombie on the medication, and we can control the clear majority of seizures without changing the dog's personality. The sedation is very short-lived. I'm using potassium bromide by itself as my first choice.

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Which Drug or Drugs *And How to Choose Them*

Dr. Gloyd: Dr. Rogers just gave us a great introduction to our next topic: after you have made the decision to start anticonvulsant medication, what do you choose? Do you routinely start with a single medication?

> *"I think monotherapy is always going to be the way we want to go for a number of reasons."*
>
> — Dr. Fred Wininger

Dr. Wininger: I think monotherapy is always going to be the way we want to go for a number of reasons. Probably more important than anything else is, like everyone is alluding to, these dogs are going to be on medication for life. From an expense standpoint and a compliance standpoint and just from a general monitoring standpoint, if we can keep them on monotherapy, it is ideal. One reason this panel has met here is to discuss monotherapies.

Forever, it has been phenobarbital and potassium bromide, which came beforehand. And now some of the second-line agents that we haven't discussed are also being used as primary monotherapies. I always think of epilepsy as a disease for which we need to have lots of different weapons, and each one of those weapons has a different indication based on seizure type, signal, owner compliance, owner abilities, and so on.

Which Drug or Drugs *And How to Choose Them*

Dr. Gloyd: Dr. Rogers, you said earlier that you start out with potassium bromide as a single agent. Is that usually successful?

Dr. Rogers: I have been using potassium bromide for 20 years, and I have found a very significant number of patients can get down to two seizures a year on potassium bromide alone. We generally need to adjust the dosage a couple of times to get to that point. We use blood levels to help us decide. You must also decide whether you are going to use a loading dose or a maintenance dose of potassium bromide. That depends largely on how frequently the dog is having seizures. If it is having frequent seizures, I do like to use a loading dose.

> *"We can get down to two seizures a year on potassium bromide alone."*
>
> — Dr. Robert Rogers

Dr. Platt: I would say my first-choice drug is often phenobarbital, just because I know what to expect from it and can talk to the clients about the potential adverse effects. I have certainly seen the cases with liver dysfunction and bone marrow dysfunction, so they are there, but they are not as common as Internet sources might make out. It's a tradeoff: balancing the success against the problems. There is no "gold standard" first choice. The choice is determined in an individual case by cost, side effects, and how often the owners want to give the medication, which is where potassium bromide stands out as an amazing drug. It is given once a day and, if the owners miss a dose, it's not really going to impact the seizure control.

Dr. Wininger: I agree with Dr. Platt. I think that phenobarbital is a first-line agent. I always love pulling out potassium bromide as the alternative first-line agent, because I get to be the young guy using the oldest drug ever used! You know, potassium bromide is from the 1800s. It's the oldest anticonvulsant we have. There have been a lot of recent indications to use potassium bromide over phenobarbital, one of which is the elevated price of phenobarbital, which has become cost-limiting to many of our clients. An advantage of potassium bromide over phenobarbital is that it is less expensive.

As we've said, potassium bromide is a once-a-day drug; and I find that to be useful in my noncompliant clients, not only because of the frequency with which they can administer the drug, but also because of the safety concerns with phenobarbital and the monitoring regimen. If patients miss dosing for a day or even a couple of days, because of the long half-life of the potassium bromide it is still going to maintain its therapeutic effects.

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Managing Medications
Case By Case

Dr. Gloyd: Dr. Rogers mentioned checking blood levels with potassium bromide. What if you are adding phenobarbital?

Dr. Moeser: Definitely with phenobarbital. We know that the risk of some serious side effects, especially hepatotoxicity, is related to the level of phenobarbital. If you go above 35 mcg/mL, the risk of hepatotoxicity does increase. So it is important to check phenobarbital levels routinely. The ACVIM Consensus Statement recommends that, after starting phenobarbital or making a dose adjustment, you should check the level 2 weeks later and then again at 4 weeks. Phenobarbital causes upregulation of its own metabolism.

> *"We know that the risk of some serious side effects, especially hepatotoxicity, is related to the level of phenobarbital."*
> — Dr. Adam Moeser

If you check a level at 2 weeks, it may actually go down a little bit at 4 weeks as the liver becomes more effective at metabolizing it. And then every 6 months thereafter phenobarbital levels should be checked. I will admit that with young, healthy dogs that are eating, drinking, and well-regulated, I do feel comfortable checking a level every 12 months along with doing a CBC chemistry, as long as I am not changing the dosage. When it comes to the other anticonvulsants (potassium bromide, levetiracetam, zonisamide), it's not dogma for me to check a level with those drugs. It's a case by case scenario.

Dr. Rogers: I think checking the level is essential when you have a dog that is not coming under control and the dosage is getting higher and higher. You really don't know when to add another drug unless you are looking at levels.

Dr. Platt: The most important point to make is that, if you are ever concerned, then check the serum level. When I say concerned, I mean, "Is the drug doing enough or is it causing adverse effects?" Second, be sure that you always treat the dog and not the serum level. Know why you are checking that level. If the dog is too sedate, it doesn't really matter what the level is. If you think that the sedation is due to the drug, it needs to come down. If the seizures are too frequent for you or for the owner of the dog, then it doesn't matter what the serum level is. You need to do something different.

> *"If you are ever concerned, then check the serum level … treat the dog and not the level."*
> — Dr. Simon Platt

Dr. Platt (continued): I also want to make the point that I will still use phenobarbital as the first drug in most cases, if the dog can tolerate it based on its liver function, because we know how effective it is. It is the most powerful drug for a first-line treatment. We know what to expect. Unfortunately, with owners now having access to information on the Internet, they may come in and say, "I don't want my dog on phenobarbital because of the associated toxicity." That is where communication is important and taking the levels to make sure we don't get that toxicity or we can anticipate it.

Dr. Wininger: One of the most common questions that I get, particularly about phenobarbital, is when to increase levels. Let me give you an example: you start your patient on phenobarbital at 2-3 mcg/kg twice a day, and the dog gets good seizure management. At 3 weeks, the level is about 12-15 mg/dL, a drug level that is considered subtherapeutic. Then, speaking to Dr. Platt's point, do you treat the dog or do you increase the levels to what would be considered therapeutic? That is another very controversial topic in the ACVIM. Do these anticonvulsant drugs need to be pushed into the reference range of therapeutic, or are some of the dogs that fall in the subtherapeutic range still getting the adequate amount of drug that provides them with seizure relief? For my part, if the seizures are controlled, I'm happy to have the drug at subtherapeutic serum levels.

Dr. Rogers: I agree with my colleagues that you treat the patient and not the level. I have many patients on potassium bromide that are below the therapeutic level, but their seizures are well-controlled.

Dr. Gloyd: Some animals may not be controlled on single therapy. When do you decide to add another medication?

Dr. Platt: That comes back to why you made the decision with the owner to start that individual dog on a particular medication. What is the frequency of seizures? What are the reasons you are considering adding a new drug? Does it involve the 'after-effects' of the seizure, the postictal changes? Is it just the frequency? The severity? What is it that told you this dog needs medication? That would be your starting point.

Obviously, if there are no seizures, we are not going to add the second drug. But somewhere between absolutely no success of the medication to no seizures, we again have that sliding scale of judgment about adding another medication. This is when we should spend that extra 5 minutes with the clients to reset their expectations. Based on what we know from human patients, if you start a second drug, the chance of that second drug making you seizure-free is about 3%. That means you have a serious seizure focus. Thankfully, we are not always looking for seizure-free. We are looking to reduce the seizures.

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> — **Dr. Simon Platt**

Dr. Platt (continued): A second drug does have the potential to do a lot more than the first drug, and we're adding it on. But the owners need to know it's not just a case of "okay, this one didn't work, let's try this one or that one." That is when frustration kicks in. We need the owners to know this is a serious disease, and it may be tough to get on top of it.

Dr. Gloyd: How often is compliance an issue with clients, particularly if you are giving a drug three times a day?

Dr. Moeser: I've noticed that even if I have a dog well-controlled, and here I will use levetiracetam as the example, I frequently get families coming in and requesting to transition to levetiracetam extended release because they have heard that it is given twice a day. It obviously is impacting the client's life having to give a medication three times a day. Even if the patient is well-regulated, owners still want to switch medications. As the veterinarian, I'm very nervous to do that. If things are going well, I don't want to switch things up. But I think it affects the quality of life for the owner and often for the patient. If owners are not able to give the medication as recommended, it is probably affecting the outcome of the patient.

Dr. Gloyd: If you have a patient on one medication but do not have adequate seizure control, can you transition to a different drug without inviting more seizure activity?

Dr. Wininger: I think that unless there is a problem with that drug, that is, whether toxicities are associated with it, then there is a direct concern from the client associated with the side effects. Or, if I'm not getting adequate seizure control, it's rare for me to transition from one drug to another. More often than not, as mentioned earlier by Dr. Platt about Border Collies, we will add a second-line agent. There is not a lot of evidence to show which drugs work best together. There is a lot of theory, and there are pharmacokinetic studies that show the effect of one drug on levels of another drug but not which combinations actually provide the best seizure relief.

I describe seizures as "too many neurons acting in synchrony in the way that they shouldn't and not enough inhibitory signals telling those neurons to quit." Using that kind of theory, my approach has always been to start with my first-line agents, phenobarbital and potassium bromide. These drugs have more of an inhibitory mechanism of action, strengthening the neurons to tell the other ones to quiet down. What is exciting about levetiracetam is that the mechanism of action of that drug is anti-excitatory as opposed to pro-inhibitory. For my part, if I'm going to add in a second drug to phenobarbital or potassium bromide, it's usually going to be levetiracetam.

Dr. Rogers: Really, in 40 years I haven't seen a dog become toxic from phenobarbital, as far as the liver problems go. But I have seen a couple of dogs that became anemic and thrombocytopenic. In that case, you do not have much of a choice but to wean them off quickly. With those dogs, I would do a loading dose of potassium bromide.

Dr. Moeser: I agree that rarely am I stopping a medication and adding a new one as an alternative. Almost always, if there is a need for a new medication, I'm probably going to start polypharmacy rather than continuing with a new monotherapy, except in the circumstance of hepatic encephalopathy or liver failure.

Managing Medications *Case By Case*

> *"That first drug might negatively impact the second drug. There may not necessarily be a toxic interaction, but it may mean that you need to use higher doses."*
>
> — Dr. Simon Platt

Dr. Platt: What you've chosen as a first drug is going to impact your second drug choice a little bit. There may not necessarily be a toxic interaction, but it may mean that you need to use higher doses. For example, if I choose phenobarbital as my first drug, depending on the seizure frequency, I can choose potassium bromide to add to it. So, as my colleagues have said, I will add rather than doing anything else. Potassium bromide doesn't necessarily have to be used at a higher dose with phenobarbital because there are no metabolic interactions there. But if I choose levetiracetam or if I choose zonisamide, then those two must be used at a higher dose if you are using with phenobarbital.

Curbing the *Side Effects*

Dr. Gloyd: Are there ways to minimize side effects with any of these drugs?

Dr. Moeser: Certainly I feel that levetiracetam and zonisamide have fewer long-term side effects. We may see GI upset, transient ataxia, or sedation. Where I encounter the most frequent side effects is when I am using the two drugs phenobarbital and potassium bromide together and there is pelvic limb weakness. Certainly, if I see pelvic limb weakness, I will make dosage adjustments, not necessarily stopping one of the medications, but trying to persuade the owner to let me decrease one of the medications and see if that helps

The other frequent complaint is weight gain and polyphagia. I believe that this issue goes back to spending a little bit more time at the beginning of the whole process, communicating with the owner that the pet is likely to want to eat more and that owners must make sure it doesn't.

Dr. Platt: If you are using phenobarbital, maybe potassium bromide as well, the levels will help to investigate and avoid side effects. The higher the level, the more likely to see a side effect. And, as has been mentioned, we try not to go over that magic 35 level with phenobarbital because that's what has been considered a level that may make hepatic toxicity more likely. We use levels, but we also educate the owners and warn them of the side effects to expect. We want, more than anything, to stop the seizures or to reduce them so everyone's life is more livable, but we have a tradeoff with the side effects.

Curbing the *Side Effects*

Dr. Wininger: I think it also speaks to making smart decisions about choosing your anticonvulsant, considering that the side effects of the drug might be difficult to distinguish from other underlying disease processes the dog might have. For example, if a dog has a history of vomiting, diarrhea, IBD, and pancreatitis, potassium bromide is probably not the best choice. I never put agility dogs on potassium bromide. I find that the owners are less tolerant of the pelvic limb ataxia than the owners that have less stringent expectations.

> ***"It is wise to consider the natural progression of the disease and select anticonvulsants that help you to distinguish the disease from the drug effects themselves."***
>
> — Dr. Fred Wininger

Another example might be a dog that has KCS. Zonisamide is a sulfonamide-based drug. You don't want to try to distinguish drug effects from underlying disease. Likewise, with an 8-year-old Golden Retriever presenting with seizures, you must consider either a brain tumor or geriatric onset idiopathic epilepsy. Drugs that have a lower side effect profile, like levetiracetam, might be better first-line agents. In all of these cases, it is wise to consider the natural progression of the disease and select anticonvulsants that help you to distinguish the disease from the drug effects themselves.

The Audience *Asks*

Question: When you talk about monitoring with levels, is there a specific time for checking levels postdosing?

Dr. Moeser: It depends on the drug for which you are doing levels. If you're talking phenobarbital, I think there is some controversy. Some people think that you must check a trough level for consistency. But there have been studies demonstrating that, in categorizing the phenobarbital level as subtherapeutic, therapeutic, or toxic, when you draw that blood sample is not going to statistically move the level outside of a category.

Question: What do you advise pet owners to look for when the dogs are home alone and they are trying to monitor seizures?

Dr. Rogers: I would have them look for saliva on the mouth. Also, remember that many dogs are incontinent during a seizure.

What's Emerging *in Seizure Management?*

Dr. Gloyd: Dr. Wininger, can you please tell us about new developments in the field of animal seizure management?

Dr. Wininger: Yes, there is a group out of Minnesota that has been doing interesting work. Using known seizuring dogs, they implanted electrodes (major surgery required) and then matched brainwave activity on electroencephalograms to video capture of seizures. With 95% sensitivity and very few false positives, they could predict when the seizures were going to happen based on the brainwaves, before a seizure occurred.

Also, a neurologist in Seattle has privately started a website called Seizure Sentry accessible at www.petepilepsy.com. This site, which is a subscription service, connects the client, general practice veterinarian, and the neurologist together so that we can see how drug levels are changing and how they are affecting overall seizure frequency and severity. It is an option to consider. If there is one thing that we can certainly all agree on, it is that increasing communication between specialists, generalists, and the clients helps everybody.

> *"If there is one thing that we can certainly all agree on, it is that increasing communication between specialists, generalists, and the clients helps everybody."*
>
> — Dr. Fred Wininger

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