

Pet Talk Tuesdays – 8/3/2021

Nick Rusch:

8:36 at The Source. Joining us via the telephone from Veterinary Village in Lomira, our friend, Dr. Marty Greer. Dr. Greer, how are you doing?

Dr. Marty Greer:

I'm doing great. Thank you.

Nick Rusch:

Good. Thanks for being with us again, and it's time for our Pet Talk Tuesday. Today, now this is a topic; internal parasites. That's our topic for today.

Dr. Marty Greer:

I know, I'm sorry.

Nick Rusch:

Yeah, no, you're fine. This is important stuff, and as usual, we always get so much information from you. This is something that when you own a pet, it's something you've got to keep an eye on, right?

Dr. Marty Greer:

It is, and unfortunately, a lot of people are under the impression if they don't see a parasite that it doesn't exist. So we need to make sure that we take a step back and assess how we determine what parasites our pets might have, if they have any, and what we can do to either treat or prevent them. And there's some really new stuff out there, so we can talk about some cool stuff today.

Nick Rusch:

All right. Fantastic. Well, first of all, how do we recognize... Are there some external signs that we can look at, and see that perhaps our pets are in distress from this particular thing?

Dr. Marty Greer:

Well, sometimes. The two main categories of internal parasites I want to talk about are going to be heartworm disease and intestinal parasites.

So heartworm disease, a lot of people are asked the vet clinic if they want to heartworm test their dog, or they are told to bring in a stool sample, but they don't really understand the difference between heartworm testing, and fecal testing, and what that whole thing means. For so long veterinarians have known about heartworm and how to prevent it, that we assume that everybody understands the life cycle of the heartworm, and how it works, and how we test for it. But I think that's sort of an oversight on the part of veterinarians and veterinary staff, because we do it every day, all day, so we think everybody else knows this too.

So heartworm disease is actually a worm, eight to 12 inches long, that lives in the heart and the lungs of dogs that are infected with it. The problem is the lifecycle is confusing, because it's spread from one dog to another by a mosquito bite when a dog, or a coyote, or wolf, or some other canine, is carrying heartworm. If a mosquito bites that animal and then bites your dog, then the heartworm disease is transmitted by these little tiny baby heartworms called microfilaria that are injected into the dog's bloodstream by the mosquito bite. And people are like, okay, if it's a 12 inch worm, how does a mosquito carry that around? I see mosquitoes in the air; they don't have 12 inch worms hanging out of their proboscis, I don't get that.

So it's the baby heartworm that are the way that we can transmit this disease, or the dogs transmit this disease. In the old days, when I started practice, the only heartworm test we had was to look for the baby heartworms on a blood sample. So we'd take fresh blood, look at it under the microscope, and if we saw these little wiggling microfilaria

between the red blood cells, we knew that the dog had heartworm. But in the last, probably 25 years, there've been new tests developed that are antigen tests, so those tests actually find the protein of the worm and not necessarily just the microfilaria. So it's a much more accurate and much earlier diagnosis when you get that information.

Nick Rusch:

It seems like as we've gone through the years and we talk about this, and it's something that we have always needed to be concerned about, but as you've said so many times with so many things, the technology medically is continuing to move forward and making things much easier.

Dr. Marty Greer:

Oh yeah, for sure. We also have better technology as far as treatment. So things have gotten better as that goes too, because back in the old days, when I got out of vet school, the heartworm prevention was given on a daily basis. So every single day in Wisconsin, from the beginning of mosquito season, which was considered April, until 30 days past a hard frost, so sometime in November or December, we had to give our dogs a pill. Some of those pills were just a tablet; you had to poke and choke them. Some of them were chewables. But that was a daily commitment that you had to keep your dog healthy. Heartworm disease has been in Wisconsin for a long time. When I had my second job in Wisconsin as a veterinarian, one of the veterinarians I worked for actually had a dog with heartworm disease, so it's kind of embarrassing.

Nick Rusch:

I was going to say, wow, that's got to be a kick in the shorts.

Dr. Marty Greer:

Yeah, a little bit. But we didn't have good tests, and people didn't really know that it was as prevalent as it is. Now we have monthly preventives. So on a monthly basis, you give a dog this cool chewable. It's tasty, it's flavored, it's wonderful. Some do just heartworms, some do intestinal parasites of a variety of different kinds. So some will do roundworm, hookworm, and whipworm prevention. Some will also do tapeworm prevention. Some will do flea birth control. So depending on which product you and your veterinarian select, you can have different spectrums of activity for what your dog is also being protected against on a monthly basis. So it's actually pretty cool.

Now there's an even newer medication that was on the market for a while, and then it left the market, but it's back again now, and that's an injection that's given every 12 months that can also prevent heartworm disease, but it doesn't control intestinal parasites. So depending on your lifestyle, your dog's lifestyle, how easy your dog is to medicate, what parasites they're exposed to, we can make really great decisions on really easy care for preventing intestinal and internal parasites for your dog. So it's really cool, and we've come a long way.

Dr. Marty Greer:

Now, don't want to forget the cats. We always feel like the cats are-

Nick Rusch:

That's where I was headed next, that's absolutely where I was headed next, yeah.

Dr. Marty Greer:

I could hear it in your head. So cats rarely get heartworm disease. I personally have never diagnosed a cat that's positive for heartworm, but it can occur in the cat. The real parasite, the natural host for it, is the dog, the other canines, but cats can get it on rare occasion. And even people can get this if they're immunocompromised on rare occasion. Again, from a mosquito bite, not from being around a dog that has heartworm. So don't forget the mosquito has to be part of that lifecycle, and the weather has to be warm enough for the mosquito to transmit the parasite. So this time of year, we've had several months of our dogs having the potential to be exposed to heartworm disease.

So if you haven't done anything about it this year yet, it's not too late, because if you went out today, got a heartworm test, got your dog on preventive, you would actually prevent any mosquito-born heartworm disease that the dog could

have been exposed to since the beginning of July, because it plays a catch-up game. So you haven't lost all the whole season, so go out and do it, and we still see dogs that are heartworm positive, even today with as easy as heartworm preventives are to administer, and as affordable as they are, we still see dogs coming in that are heartworm positive. Many of them are from the south, from the rescue dogs, or other dogs who have moved up here from the south, or people that spend part of the year in the southern states, but it is still transmissible in Wisconsin. And every single state in the country, including Alaska, has proven that they have heartworm disease naturally transmitted from one animal to their dogs in their population. So you can't say just because we have winter that we don't get heartworm disease.

Nick Rusch:

Wow.

Dr. Marty Greer:

So that's really serious. And the problem is you can't see your dog has heartworm disease until the dog has very serious organ damage. So it will cause a cough, it will cause pretty severe respiratory distress as the dog progresses through their disease. I've seen a couple of dogs just in the last few years die from this.

Nick Rusch:

Oh no.

Dr. Marty Greer:

So it's still quite prevalent and quite serious, and by the time we diagnose it, then there's often also liver damage, kidney damage, other kinds of things that have gone on because of the parasite load. So be aware that your dog doesn't have to have symptoms, and in general, we try to diagnose it prior to symptoms developing so that we can successfully eliminate the parasite and return your dog to health.

So if your dog is heartworm positive, there are treatments for it. It's not inexpensive to treat, but we can certainly treat it, and it's a very rewarding treatment because the dogs go on to generally have a pretty normal life if they don't have organ damage that's too severe by the time we diagnose it.

Nick Rusch:

Right. Do you see the difference in the animal right away once they've had the medication?

Dr. Marty Greer:

Not right away, no, because actually we have to keep the dogs very quiet for about two months after treatment. As the parasites die, the worms die in the heart, we don't want them to end up throwing a big clot of them moving through the circulation, so we have to keep the dogs really quite sedentary and quite quiet during those first two months of treatment so that that doesn't happen, they don't throw an embolism.

But once they're done with treatment, yeah they do feel better because they're not walking around with worms taking up space in their heart, and their blood vessels to their lungs, because that's not what we were meant to have in there. There's not supposed to be worms in there. So yeah, just like last year we had a dog that came in in severe respiratory distress, and couldn't save her, she was so far gone. So it can happen very quickly that the dogs de-compensate. Be aware that prevention is your best friend, and it's usually under about \$10 a month, so like 30 cents a day; less than you spend at McDonald's on a cup of coffee. So it's not expensive to treat.

Nick Rusch:

Yeah, very affordable. And we know from conversations before that often many of these medications have come down. When they hit the market they're a little pricier, and then after they become a little more common then the price goes down a little bit.

Dr. Marty Greer:

Right. They're quite affordable.

Nick Rusch:

Are there other parasites we should be concerned, about besides heartworms?

Dr. Marty Greer:

Absolutely. Those are the intestinal parasites. Now we don't want to forget that there's fleas, ticks, lice, mites, those kinds of things, but we're not talking about those today. Those are all external parasites. These are internal parasites that we're talking about today.

So the one most people are familiar with... Or the two, I guess I should say, are roundworms and tapeworms, because they can see those in the stool. So a roundworm looks like a long piece of spaghetti that's tapered on both ends. Lots and lots of puppies have these, it's really common. So the recommendation is to treat every puppy from two weeks of age on a weekly basis, until they're on a monthly heartworm preventative, to control it. There's also a protocol that we can put the females on when they're pregnant to prevent them from passing parasites to their puppies. So this is what's really interesting, is that puppies can be born with worms because if their mother ever had worms, they insist in her muscles, and the stress of pregnancy reactivates the parasites so they start to migrate.

Roundworms will migrate through the placenta and into the puppies, and hookworms will migrate to the milk and into the puppies. So there's those two ways that those parasites are transmitted before the puppies even have their eyes open yet and before they've ever been outside. So it's really important that we know that even if the mother has a negative stool sample, she can still transmit those parasites to her puppies.

Nick Rusch:

That is crazy.

Dr. Marty Greer:

Yeah.

Nick Rusch:

That's absolutely nuts.

Dr. Marty Greer:

Well, parasites are really good at doing this kind of stuff.

Nick Rusch:

Yeah.

Dr. Marty Greer:

The things that parasites want to do are be very effective at causing the next, and the next, and the next generation, but not to be so effective that they kill their hosts, because a parasite with a dead host is a dead parasite.

Nick Rusch:

Right.

Dr. Marty Greer:

So they have to keep their hosts just a little sick, but not too sick. But we can see puppies get really sick, so we certainly don't want to wait until our puppies are ill from this.

Nick Rusch:

Right, right. That's just incredible to me, that it can lie there dormant, and then the pregnancy can reactivate it. That's just incredible.

Dr. Marty Greer:

Yep. Parasites are good at that.

Nick Rusch:

They are, yeah.

Dr. Marty Greer:

So as soon as puppies are two weeks old, they should be dewormed on a weekly basis with an oral medication. And then, like I said, we can put our dogs on the monthly preventives once they become at least six to eight weeks old, we can put them on those. But all puppies need to be dewormed. So roundworms are the ones people know about. Hookworms are probably the most serious one because they're little tiny thread-like worms that you can't see in the stool, but they have little teeth, and they attach to the lining of the intestine, and they suck blood from the dog's intestinal tract. So they can make puppies really, really sick, and even adult dogs can become sick from them.

But most of the parasites we see are more serious in young dogs because their immune system isn't quite yet beefed up enough to fight off, or be resistant, to some parasites. But no adult dog can be completely resistant, so you can't say, well my dog is 10 years old, he doesn't need this stuff because he's 10. No; that doesn't work that way.

So we have roundworms, we have hookworms, we have whipworms. Again, you're not going to see those, and those are not transmitted from the mother to the puppies, those have to be by ingesting those parasites. But they're also difficult to diagnose because their eggs only get shed in the stool every couple of times that the dog has a stool, so they're harder to diagnose.

So the really cool thing is that there's a lab, IDEXX, that now has testing that doesn't just look for the eggs of the parasite on the stool sample, but it also looks for the protein with an ELISA test. So it's really cool that we can do this now. And it's a much more effective test than what we've had before, so that we're picking up parasitisms that we didn't know the dogs had, that are subclinical, and we can get ahead of those before the dogs become sick. Now I don't work for IDEXX labs, I want to be perfectly clear, but I do work with puppies every single day, and nobody wants a wormy puppy that's sick, and not thriving, and having diarrhea, and just.. That's no fun, like not even a little bit.

Nick Rusch:

No, I wouldn't think so. Well you want your puppy to be bouncing around and getting into trouble. That's what you want.

Dr. Marty Greer:

Exactly. And then we have the parasites that are so little that they're one-celled, and those are going to be Coccidia and Giardia. Lots of people know about Giardia; it's the water source that people go if they drink out of a stream like in Colorado, when you're hiking, you can get Giardia there. It's Montezuma's revenge in Mexico. So Giardia is pretty common.

And then Coccidia is also really common. Another one-celled parasite that they typically pick up from eating rabbit droppings. So dogs are dogs, and they eat what they feel like, and apparently rabbit droppings are a delicacy. So we have lots of people that come in with Coccidia, and we have lots of people that come with Giardia, and if they've gotten a puppy from a rescue, from a shelter, from a breeder, it's gotten to the point that we are having to treat these, and they're very difficult to prevent and to completely control.

So unfortunately, many dogs that come from those facilities of larger groups of dogs, will end up coming in with Coccidia and/or Giardia. And it's easy to treat, but you just have to know that that doesn't mean you've got the dog from anybody that was unclean, or wasn't careful, or wasn't a good breeder, it just means they have it in their soil and once it's there, there's no disinfectant that kills it. So we're really pretty well stuck with these kinds of things that we have to just manage, instead of try to completely control, because there's no way to eliminate those completely.

Nick Rusch:

Right. You just have to deal with it when it comes up.

Dr. Marty Greer:

Mm-hmm (affirmative).

Nick Rusch:

And the best way, as you say, is get into that prevention mode early when you've got the two week old puppy, right?

Dr. Marty Greer:

Exactly. So if you have a dog that's having abnormal stools, loose stools, accidents in the house, blood in the stool, any of those things, get a stool sample into your veterinarian, let them send it off to the diagnostic lab. It usually takes overnight unless it's a weekend. But sending that stool sample in is really much more valuable than having it run in the hospital, because there's testing that can be done sent off that we can't do ourselves. So it's important to know that, and that you don't just think that we're wasting time. We actually want to get the most accurate diagnosis that we can by sending it into the diagnostic lab.

And then there's tapeworms, and that really frustrates people because if they bring in a stool sample and they saw this tapeworm segment moving around on their dog's stool, it doesn't show up on the kind of testing that we can do at the diagnostic lab, or in our labs, because tapeworm eggs are heavy, they sink to the bottom, everything else floats to the top, and we don't have a protein test for it. We have clients that are very frustrated. They're like, I saw a parasite, I know I saw a parasite, and your stool sample said there isn't anything there, and you're wrong. Well, we're not wrong, it's just that we don't have a good way to test for tapeworms.

So if you do see those, the first thing you want to do is grab your phone, put it on camera mode, and take a photograph of it. Actually, I just cracked up, about two months ago I had a client that came in and he'd taken a picture of his dogs stool out on the grass, and there was a ruler next to the stool. I looked at it and I said, okay, you now get the prize for the best documented photograph that I have ever had a client bring me. He said, I'm a retired police officer. I'm like, of course you are, you were collecting evidence. I get it.

So get a picture of it. Then you don't have to bring it in and have us dissect it apart. But get a picture of it, because it's really helpful. I do get an embarrassing number of those on my cell phone on a regular basis, of stool samples that people have photographed, but it's really helpful. In fact, if you see anything abnormal about your dog or cat, take a photo or a video of it, because that's really helpful to a veterinarian to be able to improve their diagnostic skills. So please don't hesitate to just grab the cell phone. Put it in your DNA, like make it an automatic thing; if your dog is doing something weird, your cat is doing something strange, grab your phone and get a video or a photograph, and bring it to us because it's really helpful diagnostically.

Nick Rusch:

See and I thought it was odd when people took pictures of their lunch. Now this tops that all to heck.

Dr. Marty Greer:

Well, it is pretty weird. But on the other hand, I generally don't put this stuff on Facebook too often because it does make people a little squeamish, but it's very good information to have.

Nick Rusch:

Well at least then you know what you're dealing with, and the photographic evidence, as you say, it is evidence and it helps you track down how you can best help the animal.

Dr. Marty Greer:

Absolutely.

Nick Rusch:

In the time we have left Doctor, we don't have much left, we covered a lot of information today, give us your contact information and how folks can get more information on this, and other ways to keep their pets happy and healthy.

Dr. Marty Greer:

Sure. So you can find us at the corner of Highway 41 and 49 at the Brownsville exit, across from Quad Graphics. Our address is on Columbia Drive. Our website is smallanimalclinic.com, or Veterinary Village, if you can spell veterinary. Our phone is 920-269-4000, and we can be reached also by email at vv@k9stork.com. We're here seven days a week. We're happy to help you and your pets. So give us a call, send us an email, text us at 920-539-7164, and you can find us.