

## Pure Dog Talk 506 – Pancreatitis

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**Laura Reeves:**

Welcome to Pure Dog Talk. I am your host, Laura Reeves and I am back this month, you guys with Dr. Marty Greer, our very, very, very favorite veterinary voice. And it being the holiday season, we are going to talk about pancreatitis, which is a very common situation that we see in our dogs this time of year because accidentally, somebody might have slipped the dog an extra little bit of turkey and gravy, and that can be a problem right, Marty?

**Dr. Marty Greer:**

It can.

**Laura Reeves:**

So can we start with sort of what pancreatitis is, how we might identify it, and then treatment? And obviously, prevention is don't feed your dog your Christmas dinner.

**Dr. Marty Greer:**

Pretty much. So yeah, pancreatitis is inflammation of the pancreas; -itis is always an inflammatory condition. The pancreas is a very important organ in your body, it has two sections to it and it lives right outside your stomach and intestines. And its job... It does two jobs. One, is it produces enzymes to digest your food. And the other, is it produces insulin to control your blood sugar. So there's a couple of different kinds of pancreatitis. There's acute and chronic pancreatitis, and then there's exocrine pancreatic insufficiency, and then there's diabetes. So those are the most common disorders that we see in the pancreas in the dog. We can also, on rare occasion, see pancreatic tumors, and they're called insulinomas, not common. And we're in a pretty big practice. We have six doctors, so that's a reasonably big practice for most veterinary clinics. And we see, on average, maybe one of these every couple of years.

So those are kind of the things. We rarely see the kind of pancreatic cancer that people suffer from. But if we do see pancreatic cancer, it tends to be the insulinoma kind, which causes the blood glucose to drop too low. And then the dogs will come in with a seizure type of activity. But I don't want to get too far down that right road, I just want to kind of mention that, say that it exists. We rarely see other kinds of pancreatic cancer. It doesn't have the death sentence associated with it that human pancreatic cancer does. But most commonly, we see pancreatitis either in the acute form or the chronic form. And as the proud survivor of four bouts of pancreatitis, I can give you firsthand information-

**Laura Reeves:**

Ouch.

**Dr. Marty Greer:**

Yeah, you aren't kidding. About pancreatitis in a way that probably, most veterinarians aren't able to share with you. So it's kind of a disorder that's near and dear to my heart.

**Laura Reeves:**

Okay. So talk to us about what we would think of, particularly at the holidays this time of year, acute pancreatitis. What are we going to see in the dog?

**Dr. Marty Greer:**

Sure. And most pancreatitis is associated with vomiting. About 90% of the dogs with pancreatitis present with vomiting. The reports are about half will present with abdominal pain. I can tell you having had four episodes of pancreatitis, that if your dog turns around and tries to bite your veterinarian during the time that they're feeling their abdomen and palpating it to check if there's any abnormalities that they can feel, like masses or foreign bodies or anything, that dog is justified in biting the veterinarian. Because there is nothing that hurts much worse in my experience, than pancreatitis.

**Laura Reeves:**

Wow.

**Dr. Marty Greer:**

Now, I've never had serious, serious trauma, but I'm going to tell you, pancreatitis is very painful.

**Laura Reeves:**

Okay. So vomiting, abdominal pain.

**Dr. Marty Greer:**

Right.

**Laura Reeves:**

And the vet is going to do what? I assume a typical CBC, full blood workup.

**Dr. Marty Greer:**

Yeah. That's typically where we'll start. Vomiting, abdominal pain, loss of appetite, dehydration as a result of all those things. So we'll start with CBC chemistry panel, the old chemistry panels that we have historically run for 40 or 50 years in veterinary medicine included a lipase and amylase test. Which were at one time, the backbone of how we diagnosed pancreatitis. With amylase typically going up early on in the course of the disease, and then it was usually followed by lipase. And to my knowledge, they still use that on the human side. Although, I haven't had a bout a pancreatitis for 37 years so I don't keep up with it.

**Laura Reeves:**

That's a good thing.

**Dr. Marty Greer:**

It's a very good thing. But we have newer tests now that are more useful and are pretty available if we suspect pancreatitis. So in most cases, this test is not found on the routine panel. But in some laboratories and in some veterinary clinics, it may be added on if there is a suspicion of pancreatitis.

So that's the CPLI, or the canine pancreatic lipase immunoreactivity test. CPLI. It's a lot more accurate than amylase and lipase, either alone or by combination. So it's typically about 80 to 90% accurate in diagnosing pancreatitis, so it's pretty useful. Other blood work tends not to be very specific. You can see elevated liver enzymes, you can see an elevated bilirubin, where the patient becomes jaundiced if the pancreas is swollen enough to cause an occlusion of the bile duct and then there's bile building up. But typically, the patients don't come in jaundiced in most cases. It can evolve into that, but it typically isn't a presenting sign. There's also typically a history of the dog having gotten into the garbage, being fed a high fat meal. It's typically in middle-aged to older, overweight, females of certain breeds, miniature Schnauzers, Dachshunds, miniature poodles, Cavaliers, Cocker. They also list Collies, Boxers, Yorkies, and other terriers.

And like I said, it's most common in the spayed female. Also, a little bit more common in neutered males. But mostly it's that middle-aged, overweight, terrier type.

**Laura Reeves:**

So what you're telling me, is I should expect to have pancreatitis this winter? Okay, good.

**Dr. Marty Greer:**

Well, that's kind of how I felt when they diagnosed me, was I'm like, "I'm not a fat, middle-aged overweight dog, but thank you very much. And I didn't recently get into the garbage." So it tends to be the dog knocks over the trash and eats the drippings from the turkey or the chicken or the ham fat, or the scalloped potatoes. One of those kind of fatty meals that are associated with what we do at the holidays, all those fun and exciting dishes that we serve. I've seen people inadvertently have guests or even themselves feed a little bit too much fat to a dog.

And so that's a fairly typical history. But even without that high fat meal, we can still see pancreatitis. We also can see some of these patients that have recurrences. So they become that low grade chronic pancreatitis patient, and those dogs have to be managed long-term, very carefully on low fat well-managed diet so that the patient doesn't have recurrences and flare ups. Because eventually, too many episodes of pancreatitis we feel can probably cause scarring of the pancreas and potentially lead to diabetes because the pancreas is scarred down in the cells in the pancreas that need to produce insulin to control the blood sugar or the blood glucose levels become damaged. And so then the glucose is no longer managed. And then we have a diabetic patient. So you'll notice some of the dogs on the list in particular, miniature Schnauzers are a breed that we also see diabetes in. So something to kind of keep in mind.

**Laura Reeves:**

Interesting. So that is, I think a very interesting overview in terms of acute, I got the turkey. Chronic, I eat too much fat too often and it flares up. And then long-term, transitioning into diabetes.

**Dr. Marty Greer:**

Right.

**Laura Reeves:**

Interesting. I'm questioning then, our prevention clearly is good, solid diets, not high fat, proper nutrition. All of those things just like us.

**Dr. Marty Greer:**

Go figure.

**Laura Reeves:**

Go figure.

**Dr. Marty Greer:**

Yeah. So if you have a dog that has a tendency to do this, you need to warn your guests not to feed the dog off the table, don't let them put things down where they shouldn't, put the dog in a crate, lock them in a bedroom. Keep them safe if you have guests over. People don't mean to cause any harm, but it's like alcohol consumption or chocolate. There's a lot of things that dogs can get into that we never intend for them to. I've had clients set a glass of wine down or glass of beer... In Wisconsin, we drink old fashions. And the dog helps themselves to it. So no one deliberately intends to cause a problem. But if you know you have a dog with a tendency to eat naughty things and that has a likelihood of having pancreatitis, you just try to prevent the whole thing. Because it can be a fatal disease if it's not managed well.

And if the dog has an acute, it's called acute necrotizing septic pancreatitis. So the pancreas basically digests itself and it causes very severe inflammation in the abdomen. Patients can die from it. In fact, up to 30% of the dogs that have a really severe form of it can die. So it's not something that we take lightly. It requires hospitalization, nothing by mouth

for a minimum of three days, IV fluids, medications for vomiting, medications for pain, antibiotics to prevent bacterial invasion, supportive care for the liver, all these things.

**Laura Reeves:**

Wow.

**Dr. Marty Greer:**

It's not an easy disease to treat. It's not just, "Oh, here's a bottle of pills. Go home." It is, "Your dog is going to be in the hospital on fluids because you can't even let them drink water without causing the inflammation to recur." So it's very serious. And if any people out there have had pancreatitis, because people do have this, it is a wicked disease. So anyone that's had it, will certainly sympathize with how uncomfortable the dogs are and how miserable it is to treat.

**Laura Reeves:**

Okay.

Hang tight, guys. Got a little bit of information for you. We'll be right back to the podcast in a minute. Pure Dog Talk is proudly sponsored by Trupanion, medical insurance for the life of your pet. Trupanion cares passionately about pets and makes sure their policy has what it takes to serve you and your furry companions. In fact, they are the first pet insurance provider to cover certain health conditions associated with breeding animals through their specialized breeding rider. Their industry leading coverage does not stop there. Trupanion's free breeder support program also allows you to send your litters home protected, with an offer for a Trupanion policy. Learn more about all of the perks that Trupanion offers breeders by following the link on my partner page at [puredogtalk.com](http://puredogtalk.com). So you talked briefly about some of the more strange and random things that can happen to the pancreas. And before we get too far, diabetes is a thing in dogs.

**Dr. Marty Greer:**

It sure is.

**Laura Reeves:**

And so again, since we're having pancreas day here at Pure Dog Talk, let's do the full pancreas. Diabetes, what are we going to see?

**Dr. Marty Greer:**

Diabetes, we'll typically see a patient that comes in again, vomiting, usually some significant weight loss, and typically predated with a significant increase in water consumption and therefore, urination. And some of the patients already have cataracts by the time they come in our door. So again, it's a pretty serious disease. And unfortunately, for dogs, we cannot manage dogs without insulin injections twice a day. There is no oral hypoglycemic agent like there is in people. So people are kind of shocked if you diagnose their dog with diabetes and you tell them, "Well, twice a day for the rest of their dog's life, you'll be giving insulin injections. You have to put them on a regular schedule for eating. They have to have the same amount of exercise every day. You have to have a very strictly controlled diet and twice a day, you're going to give an injection of insulin."

And people kind of like freak out. They're like, "Oh, I can't... I can't give an injection. I can't do this." And I've walked every person from every walk of life through it. I've had a priest, I've had secretaries, I've had people with absolutely no medical background very successfully manage their dogs with diabetes. But if you don't have to treat it, it's always better than having it. So unfortunately, there's no pill that we can give a dog that manages diabetes. All dogs that have diabetes have what is the equivalent of type one diabetes in people requiring insulin.

**Laura Reeves:**

And so talk to us about... You mentioned that too much over the course of time of pancreatitis can cause some damage in the pancreas that can lead to diabetes. Can it appear in and of itself?

**Dr. Marty Greer:**

Oh, yeah.

**Laura Reeves:**

Is it a genetic component?

**Dr. Marty Greer:**

We don't really know if it's genetic. Although, anytime you list a couple of breeds that are more likely, then there probably is a genetic component to it. Part of the problem, is it tends to be late in life onset so it can be difficult to predict which dogs are going to produce puppies that have diabetes. So of course, you want to avoid that if you can. But we don't have a DNA marker for it and we don't have a way to prevent it. So there really isn't anything we can do proactively to keep that from happening, other than trying to prevent pancreatitis in the breed. And then if you have a breed of dog that... If you're a Schnauzer person and you always wanted a Schnauzer, you're going to have to just settle for the fact that some of them are going to have diabetes if you keep sticking with the same thing. It's like any other disease, Boxers, Bernese mountain dogs, we know they have cancer. If you're going to keep getting more Bernese mountain dogs, you're going to have another with cancer. That's just life. So unfortunately, that's the case.

**Laura Reeves:**

Okay. All right. And then you talked about the insulinoma, and I oddly enough know someone whose dog just went through this and a very, very devastating situation. Can you give folks a little bit of an idea what that's going to look like?

**Dr. Marty Greer:**

Sure. The dog will come in often with a seizure type of activity. And so this is one of the reasons that when dogs come in seizing, we recommend that we do a full blood panel on them. We can't diagnose epilepsy on a blood test, but we do want to make sure that we're ruling out other things. And low blood sugar, low glucose is certainly one of the things that can cause acute onset of seizures. If the glucose low, whether the dog is seizing or not, and the blood has been handled correctly, then we start going down the path of looking for the insulinoma. That involves doing a blood test that's done at a couple of diagnostic labs, that looks for the insulin level relative to the amount of glucose in the bloodstream. So it's typically a presumptive diagnosis based on blood work. And then a more complete diagnosis would be with an ultrasound, typically with a radiologist that's skilled at finding the pancreas and skilled at finding masses on the pancreas.

Some of those patients will go to surgery and will do well removing the pancreatic nodules that are causing the insulinoma. And then those dogs typically whether they have surgery or not, will be maintained on a special diet, usually on Prednisone for the rest of their life. And occasionally, those dogs will also end up diabetic. So it's one of those little weird things that happens that they go from having too much insulin and becoming hypoglycemic to having not enough insulin and then ending up diabetic. I have a client that lost his dog after probably two or three years of managing her pancreatic insulinoma, that he lost her to it. So we certainly do see those things and they're difficult to manage. So anything with the pancreas is a challenge to manage.

**Laura Reeves:**

And you said pancreatic cancer, very rare. Once again, Auntie Laura's medical miracles, I did lose a dog at four years old to pancreatic cancer. My vet at the time, said she'd been in practice for 40 years and had seen one. And so is there something that we think about in some of these super rare cancers, your thoughts, your insight, your knowledge, are we looking at environmental triggers? Are we looking at genetic triggers? What are we looking for when we see something like that, that is random, weird, out of the blue?

**Dr. Marty Greer:**

Yeah. I don't think we know enough about it to really say that we can determine what that is. So the other thing we don't want to miss today when we're talking about the pancreas, is exocrine pancreatic insufficiency.

**Laura Reeves:**

Yes.

**Dr. Marty Greer:**

EPI. I now hear commercials on the radio for a drug that they're putting people on for EPI. And so again, dogs can have that. Typically, we see that in a young dog, most commonly a German shepherd but it can occur in other breeds as well. And those are dogs that have chronic diarrhea. They have usually kind of a greasy or oily type of stool, really difficult to manage diarrhea. And there fortunately, is a very good blood test for that. Typically, was only run at Texas A&M, but I think some other labs have picked that up, too. And that's the TLI test.

So there's a TLI, a PLI, and then you can also run a cobalamin and folate. So dogs that have chronic diarrhea, that's the profile that typically a veterinarian's going to order on a young dog with chronic diarrhea that has been proven not to have parasites as the underlying problem. And that you've tried to manage with diet and things like Metronidazole. If they're just chronically having problems, then that's the blood profile that has to be run. Simple blood test to run. The tricky part, is to bring the dog in with a 12 hour fast prior to the time of your veterinary appointment. Because a lot of people aren't told if they're coming in, that they need to have a 12 hour fast. So if you have a suspicion that your dog may have that, then just keep that in mind.

And you may want to talk to your veterinarian if you've had a young dog with chronic diarrhea that's unmanageable, that you do talk about running this test. And it's a relatively easy disease to manage in that, we add pancreatic enzymes to the dog's food, sit it on the counter at room temperature for about 30 minutes prior to feeding the dog. And basically, it predigests the food and so the pancreatic enzymes that are lacking in the dog's system when they eat are replaced by a granular form of that. And it can be managed pretty well if the dogs diet is managed correctly. So not all that common again, but more common in young dogs, typically German shepherds, we see it in Corgis, and there certainly can be other breeds as well. And again, there probably is a genetic component to that.

Before we had the blood test, we used to do a very fancy test with a piece of x-ray film. And we would put the x-ray film mixed with the fecal material and some saline, and see if the protein that held the gel on the x-ray film was digested off. Not a very sophisticated test, but still one that was quick and dirty. Now, that most veterinarians don't have x-ray film in their practice, it's all digital. We can-

**Laura Reeves:**

Can't even do that.

**Dr. Marty Greer:**

Find a piece of x-ray film, run the test anymore. But again, kind of an interesting thing. So insulinoma, pancreatic cancer, exocrine pancreatic insufficiency, diabetes, acute pancreatitis, and chronic pancreatitis kind of sums up all the things that can really go-

**Laura Reeves:**

One major organ today. This is amazing.

**Dr. Marty Greer:**

Yeah. It's a lot of material to cover and there's so many variations, but they all basically end up with some kind of GI symptoms. So if there is a problem, then of course, that's where you're going to be looking. And x-rays are not very useful for diagnosing any of these. Ultrasound with the right person, it can be useful in diagnosing pancreatitis, both the acute and chronic form. But most imaging x-rays, they're not going to tell us anything. So I just think it's good for people to kind of know what path they're going to go down. Usually, exploratory surgery is not indicated to make a diagnosis of this.

**Laura Reeves:**

There you go. Awesome. All right, well, Marty, thank you very, very much. And everybody, tune in next month because we are going to have a very cool conversation about anal glands. I get to say anal glands on the internet. So there you go. It's a thing.

**Dr. Marty Greer:**

Go for it.

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