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Dog Tips

Can Destroy the Pancreas and Lead to Multiple Organ Failure and Death

But first, you'll see other symptoms. And while it can be mild, it's fatal 27% to 58% of the time. In dogs that eventually die from it, these six symptoms have been noted. Since there's no simple cure, you'll want to take these actions to prevent it.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Pancreatitis, or inflammation of the pancreas, is a condition in dogs that can range from mild to life-threatening
- There are many potential risk factors and triggers for canine pancreatitis, including breed disposition to the disease
- Symptoms of pancreatitis also occur in many other disorders, and include loss of appetite, nausea and vomiting, dehydration, and abdominal pain
- Treatment is supportive in nature, and is focused on alleviating symptoms
- To help prevent pancreatitis or a relapse, it's important to provide dogs with digestive enzymes, preferably along with a nutritionally balanced, species-appropriate raw diet

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Pancreatitis (inflammation of the pancreas) is a very serious condition that probably doesn't get the attention it warrants. In humans, the disease is reportedly fatal in 5% to 15% of cases. In dogs, it's even more dangerous — from 27% to 58% of patients with the disease don't survive it.[1]

Inflammation of the pancreas disrupts its normal functions, which include secreting insulin to balance blood sugar levels, and producing digestive enzymes such as amylase, lipase and protease, which are necessary for nutrient digestion and absorption.

Severe damage to the pancreas can trigger a massive inflammatory reaction known as systemic inflammatory response syndrome (SIRS), characterized by increased capillary permeability, fever, rapid heart rate, a drop in blood pressure and ultimately, multiple organ failure. In addition, as the result of a process called autodigestion, dogs can develop severe necrotizing pancreatitis in which entire portions of the pancreas are completely destroyed.

Potential Risk Factors and Triggers for Pancreatitis in Dogs

Risk factors for canine pancreatitis include:

- Obesity
- Hypothyroidism
- Diabetes
- Middle age or older
- Cushing's disease
- Small breed
- Pre-existing gastrointestinal (GI) disease

According to veterinary journal dvm360, about 25% of dogs with acute diabetes also have acute pancreatitis.[2] The condition is also more common in dogs who have had recent surgery, especially procedures involving the abdominal cavity. In addition, certain drugs are also suspected of triggering acute pancreatitis, including anti-seizure drugs such as potassium bromide or phenobarbital, prednisone and other catabolic steroids, and even the diuretic Lasix.

Dietary indiscretions are also very commonly implicated in attacks of pancreatitis and typically involve high-fat foods such as fatty meats, turkey skin, bacon grease, etc. Processed pet food also plays a role in pancreatitis in pets (more about that shortly).

Any dog can develop pancreatitis, but several small breed dogs are predisposed, including the Miniature Schnauzer, Cavalier King Charles Spaniel, Cocker Spaniel, Sheltie, Toy Poodle and the Yorkshire Terrier.

Signs to Watch For

Pancreatitis in dogs can cause a variety of symptoms that are also seen in many other conditions, and they can range from mild to very severe. A 1999 study showed that in dogs with acute pancreatitis that ultimately proved fatal, the following symptoms were reported:[3]

- Anorexia (91%)
- Abdominal pain (58%)
- Vomiting (90%)
- Dehydration (46%)
- Weakness (79%)
- Diarrhea (33%)

When the disease is very severe, inflammation can become systemic, which can cause shock or cardiovascular (circulatory) collapse. The most common symptoms veterinarians see when examining dogs with acute pancreatitis are dehydration, excessive drooling and lip-licking (signs of nausea), and abdominal pain. Since these symptoms are present in a wide variety of diseases and disorders, a thorough diagnostic workup should be performed, including bloodwork and X-rays or scans.

Veterinarians have historically diagnosed pancreatitis using a blood test called the PLI (pancreatic lipase immunoreactivity) test. More recently, Texas A&M University has developed a test for canine pancreatic-specific immunoreactivity called the Spec cPL test. There’s also now a cPL test that offers results almost immediately at the vet clinic, without the need to ship the sample to an outside lab.

Treatment Options and Prognosis for Dogs with Pancreatitis

There is no procedure or medication that cures pancreatitis, so treatment is supportive, with the goal of reducing the dog's symptoms. Supportive therapy includes:

- Intravenous (IV) fluids to address dehydration, hypovolemia (decreased blood volume) and electrolyte imbalances
- Pain management
- Antiemetics to alleviate nausea and vomiting
- Enteral nutrition (tube feeding)

In most cases of pancreatitis, antibiotics are unnecessary and unhelpful. In addition, nonsteroidal anti-inflammatory drugs (NSAIDs) and steroid medications like prednisone should be avoided.

Dogs who suffer an acute bout of pancreatitis can have different outcomes. Some recover fully with no further issues, some recover but go on to suffer from chronic pancreatitis, and some dogs have recurrences of acute pancreatitis. In dogs with coexisting conditions such as diabetes, successful treatment of pancreatitis depends on successful treatment or management of other diseases.

Preventing Pancreatitis (or Its Recurrence)

Veterinarians are seeing increasing numbers of both dogs and cats with pancreatitis, and processed pet food plays a big role. High-carbohydrate diets affect insulin levels, which affect the pancreas.

KetoPet Sanctuary has made some interesting discoveries about dogs consuming unadulterated (raw) fat versus dogs eating cooked (processed) fat, in that raw fat (even very high-fat diets) did not cause pancreatitis in their cohort of patients, but cooked fat did induce pancreatitis in some patients, even in small amounts.

So, the question you should be asking is, do the highly processed, poor-quality fats (heated repeatedly, up to four times during the manufacturing process before "pet food" is created) contribute to the epidemic of chronic, low-grade pancreatitis occurring worldwide in pets?

In addition, processed pet food is devoid of natural enzymes that help reduce pancreatic stress, which is why the pancreas of many pets exists in a state of chronic, low-grade inflammation. Food that doesn't contain natural enzymes triggers the pancreas to try to make up the difference. If it fails to perform adequately, pancreatitis results. In addition, many pets are fed high-fat diets, which we know are a cause of pancreatitis.

Dogs (and cats) are designed to get supplemental enzymes from the foods they consume, since their ancestral diet is loaded with living foods that contain abundant enzymes. In the wild, dogs consume portions of the GI tracts of their prey, which is a rich source of enzymes. They also consume the glands, including pancreatic tissue, which are abundant in naturally occurring enzymes.

Even if you're a raw feeder, chances are you aren't giving your dog the stomach contents of prey animals, since this is where parasites reside. What this means is that even pets consuming a nutritionally balanced, species-appropriate raw food diet can be enzyme-deficient.

One of the most important steps you can take to lower your dog's risk of a repeat episode of pancreatitis is to provide a rich source of digestive enzymes, either through feeding pancreatic tissue (which is unappealing to most pet parents, and can be difficult to source) or a supplement. This will help reduce the stress your pet's pancreas is under to produce enough enzymes to process food.

So, if you have a dog who's currently dealing with pancreatitis, has had it in the past or if you want to take preventive measures to reduce the likelihood your pet will develop the condition, adding digestive enzymes to his food that contains no cooked or processed fat at mealtime is a great way to help reduce pancreatic stress.

Sources and References

[1] Topics in Companion Animal Medicine. (27)3:123-132 August 2012

[2] dvm360, May 11, 2018

[3] J Am Vet Med Assoc. 1999 Jan 1;214(1):46-51