Pancreatitis

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The pancreas is a V-shaped organ located behind the stomach and the first section of the small intestine, the duodenum. It has two main functions: It aids in metabolism of sugar in the body through the production of insulin, and is necessary for the digestion of nutrients by producing pancreatic enzymes. These enzymes help the body promote the digestion and absorption of fats. Acute pancreatitis is a sudden onset of pancreatic inflammation. Chronic pancreatitis can also occur.

What are the causes of pancreatitis?

Multiple factors can contribute to the development of pancreatitis in cats:

- Certain medications, such as some antibiotics and some anti-cancer drugs, as well as some insecticides, such as organophosphates
- Metabolic disorders such as hypercalcemia (high amounts of calcium in the blood)
- Abdominal surgery, trauma to the abdomen (e.g., hit by a car), shock, or other conditions that could affect blood flow to the pancreas
- Infections such as feline calicivirus, toxoplasmosis, and instestation with the liver fluke Amphimeerus pseudofelineus
- Bile duct disease, inflammatory bowel disease, or other small intestine disease
- Previous pancreatitis
- Genetics may play a role with domestic shorthair cats and Siamese appearing to be more at risk

What are the symptoms of pancreatitis?

Cats tend to have a more low-grade smoldering type of pancreatitis than dogs. Cats often show lethargy, dehydration, loss of appetite, and weight loss. Less than 50% of cats with pancreatitis have vomiting and abdominal pain as a symptom. Fever, an increased heart rate, jaundice and changes in breathing patterns may also be seen.

Animals with more severe disease can develop heart arrhythmias, sepsis (body-wide infection), difficulty breathing, and a life-threatening condition called disseminated intravascular coagulation (DIC), which results in multiple hemorrhages. If the inflammation is severe, organs surrounding the pancreas could be 'autodigested' by pancreatic enzymes released from the damaged pancreas and become permanently damaged.

How is pancreatitis diagnosed?

To diagnose pancreatitis, other causes of the symptoms must be ruled out. A complete history is taken and a thorough physical exam, a complete blood count, chemistry panel and urinalysis are performed. Blood levels of two pancreatic enzymes, amylase and lipase, may be obtained. A more sensitive and specific test for pancreatitis, the fPLI (feline pancreatic lipase immunoreactivity) test is recommended. In addition, radiography (x-rays) and ultrasound can also help in making the diagnosis. A biopsy can result in a conclusive diagnosis, but is not commonly performed.

How is pancreatitis treated?

The goals of treatment are to:

- Correct dehydration
- Provide pain relief
- Control vomiting
- Provide nutritional support
- Prevent complications

Dehydration and electrolyte imbalances are common in cats with pancreatitis, so supplemental fluids are given either by the subcutaneous or intravenous route, depending upon the severity of the condition.

Cats who are experiencing pain can be treated with pain relievers such as meperidine or butorphanol.

Medications may be given to decrease the amount of vomiting, if necessary. If vomiting is severe, food, water, and oral medications are withheld for at least 24 hours. Depending upon the cat's response, food intake can be started again after a day or more. The cat is generally fed small meals of a bland, easily digestible, low-fat food. In some cases, especially for cats with a loss of appetite, it may be necessary to use tube feeding to provide proper nutrition. In addition, vitamin B12 injections,
appetite stimulants, and supplementing pancreatic digestive enzymes in the food may be of benefit.

If the pancreatitis was caused by a medication, the medication should be stopped. If it was caused by a toxin, infection, or other condition, the appropriate therapy for the underlying condition should be started. Specific therapies for the liver and intestine are often added to the treatment regimen for pancreatitis in cats. These may include SAM-e, ursodiol (Actigall), and metronidazole. Corticosteroids, such as prednisolone, are also advised in some cases of feline pancreatitis.

In rare instances where there are intestinal complications or the development of a pancreatic abscess, surgery may be necessary.

What is the prognosis for cats with pancreatitis?

Pancreatitis can be a very unpredictable disease. In most cases, if the pancreatitis was mild, chances of recovery are good. In other cases, what appears to be a mild case may progress, or may be treated successfully only to have recurrences, sometimes severe. If there are other concurrent diseases such as diabetes mellitus, liver disease, or small intestine disease, the prognosis is more guarded.

Some animals develop chronic pancreatitis, which can lead to diabetes mellitus and/or pancreatic insufficiency, also called 'maldigestion syndrome.' In pancreatic insufficiency, the food is not digested properly. A cat with this disease often has weight loss. Treatment for pancreatic insufficiency is lifelong and expensive, but is possible. The cat's digestive enzymes are replaced through a product processed from pancreases of hogs and cattle which contain large quantities of the digestive enzymes. A change in diet with added nutritional supplements may also be necessary.

Summary

Acute pancreatitis can be a life-threatening condition, and early recognition and treatment can improve chances of recovery. Chronic pancreatitis is more common in cats. Common signs include lethargy, weight loss, and decreased appetite. Treatment is based on correcting the dehydration and maintaining proper fluid and electrolyte balances, controlling other symptoms and providing nutritional support.