College of
Veterinary Medicine

Cornell Feline Health Center

Supporting Cat Health with Information and Health Studies.

Feline Pancreatitis

Suggested Articles

Pancreatitis

Feline Diabetes

Feeding Your Cat

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The feline pancreas is a small internal organ located in the cat's abdomen between its right kidney and intestinal tract. Though the pancreas weighs only about six to eight ounces, it serves two very different functions vital to maintaining health. Inflammation of this organ, known as pancreatitis, can be very serious or even life-threatening if not appropriately treated.

The pancreas has two separate parts, the endocrine and the exocrine pancreas, which serve two different functions:

- The endocrine pancreas produces various hormones. Two of the main hormones produced by the pancreas are glucagon and insulin, which regulate blood sugar levels. The most common disorder of the endocrine pancreas is diabetes mellitus, caused by a decreased level of insulin production, resulting in elevated blood sugar levels.
- The exocrine pancreas produces enzymes which are delivered to the intestinal tract to aid in the digestion of fats, proteins, and carbohydrates. If these enzymes become activated prematurely, they can seep into the pancreas and surrounding tissue, causing damage and inflammation. This disease is known as pancreatitis.

Pancreatitis was once thought to be very rare in cats, but is now recognized more frequently. This may be due to improvements in testing and diagnostics available to veterinarians. Though a few infectious diseases, such as *Toxoplasma gondii,* have been associated with the development of pancreatitis in cats, in over 95% of cases there is no obvious underlying cause. Because of this, there is no effective way for cat owners to prevent pancreatitis in their pets.

Pancreatitis is also associated with many other diseases in cats, such as chronic intestinal disease, liver or gallbladder disease, and diabetes. Chronic pancreatitis should be considered in cats who are not responding well to treatment for other chronic illnesses.

Diagnosis

The diagnosis of pancreatitis can be challenging in many cases, as there is no one test that is definitive for the disease. A veterinarian will make the diagnosis taking into account a cat's clinical signs, multiple blood tests, and imaging results.

General screening blood work consisting of a complete blood count and chemistry panel can be normal, though non-specific changes are common. Many cats will have elevations of some liver enzymes, as well as changes to electrolytes due to vomiting. Dehydration can also lead to an elevated red blood cell count or mild increases in kidney values, but none of these changes are specific to cats with pancreatitis and can be seen with many illnesses.

The most specific blood test for pancreatitis is known as feline pancreatic lipase immunoreactivity, or fPLI. This tests for a marker specific to the pancreas, and concentrations are usually increased with pancreatic inflammation. One form of this test (SNAP fPL) is available as a rapid test and can give a same-day result in many veterinarians' offices, while another form (Spec fPL) requires

blood to be sent to an outside laboratory. While this is currently the most sensitive blood test available to diagnose pancreatitis in cats, it can miss cases of mild or chronic pancreatitis. This is especially true of the more rapid SNAP test.

Imaging is another important test for diagnosing pancreatitis in cats. While x-rays do not generally show changes specific to pancreatitis, they may be recommended to rule out other common causes of decreased appetite and vomiting in cats, such as intestinal blockage. Ultrasound examination by an experienced veterinarian can identify changes to the pancreas in up to ⅔ of cats with pancreatitis, including pancreatic inflammation, inflammation of surrounding tissue, pancreatic enlargement, or fluid surrounding the area. These changes are usually more obvious in cases of acute pancreatitis.

A biopsy of the pancreas to identify acute or chronic changes to pancreatic cells under the microscope can be very effective in terms of diagnosis, but as this test requires general anesthesia and abdominal surgery, it is not often recommended in typical cases.

Treatment

The four main goals of treatment for feline pancreatitis are the management of dehydration, nausea, pain and nutrition. For relatively mild cases, this may be achieved through outpatient and at-home treatment, but for severe and acute cases of pancreatitis, hospitalization for intravenous therapy and intensive nutritional support may be required.

Hydration and fluid support are critical in the treatment of feline pancreatitis. Dehydration is a very common finding, and fluid loss can be severe enough to affect blood pressure in some patients. In these cases, cats will require intravenous fluid therapy in the hospital, which also allows the veterinarian to correct any electrolyte abnormalities caused by the fluid loss. In less severe cases, subcutaneous fluids can be given under the skin in the veterinary clinic or even at home.

Anti-nausea medications are recommended in cats with pancreatitis, even in cases where vomiting is not seen. Reduced appetite is commonly related to nausea, and appetite can often be improved when nausea is treated. One of the most common anti-nausea medications, maropitant (Cerenia), has also been shown to help decrease abdominal pain in animals. If additional pain medication is needed, opioid medications such as buprenorphine may be prescribed.

Early nutritional support is key in the treatment of feline pancreatitis. Studies have shown that the earlier a cat gets back to eating, the better the prognosis for a good recovery. If anti-nausea and pain medications do not improve appetite, appetite stimulants such as mirtazapine, which is available as a pill and a transdermal preparation applied to the inside of the ear, may be used. If this therapy is not successful, a feeding tube may be placed by the veterinarian to allow delivery of food directly into the stomach. Proper nutritional therapy not only helps cats recover more quickly from pancreatitis, but prevents other complications of prolonged anorexia, such as hepatic

lipidosis. Other treatments, such as steroids or antibiotics, are not generally indicated in most cases of pancreatitis, but may be used if there is another concurrent disease present.

The prognosis for cats with pancreatitis can vary as widely as the clinical severity of the disease. For cats with mild to moderate forms of disease, the prognosis for recovery is generally very good, though repeated episodes are possible. Pancreatitis can, however, be fatal in cats with very severe forms of acute pancreatitis.

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