VETERINARY SPECIALTY CENTER
EMPLOYEE-OWNED

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Pancreatitis

The pancreas is an abdominal organ that sits adjacent to the upper part of the small intestine. It produces the enzymes necessary for the breakdown of carbohydrates, fat, and proteins, as well insulin, a hormone which regulates sugar metabolism.

Cause

The enzymes produced by the pancreas are secreted into the intestinal tract where they aid in digestion. They are powerful enzymes which are capable of breaking down food in order to be absorbed by the gut into the blood stream. The enzymes of the pancreas normally do not become active until they reach the intestine, but in some patients, the enzymes are activated in the pancreas which causes inflammation and even digestion of the pancreas and surrounding fat.

Pancreatitis is inflammation of the pancreas. The pancreas becomes swollen, the surrounding fat can become firm, and there can be fluid around the pancreas and in the abdomen.

Pancreatitis can come on suddenly (acute pancreatitis) or can be recurrent over time (chronic pancreatitis). Acute pancreatitis can occur following ingestion of a high-fat meal or change in diet, but often there is no identifiable cause.

There is an increased incidence of pancreatitis in female dogs, particularly Miniature Schnauzers, Poodles and Cocker spaniels. Pancreatitis is also more common in Siamese cats.

Chronic pancreatitis in dogs is often associated with underlying medical conditions such as obesity or hormonal conditions such as Cushing's disease and diabetes mellitus. Cats with liver problems and inflammatory bowel disease are predisposed to pancreatitis.

Surgery of the pancreas for any reason can cause acute pancreatitis.

Clinical Signs

Vomiting, diarrhea and abdominal pain are common in dogs with pancreatitis. This is usually accompanied by lethargy and refusal to eat. Some dogs appear uncomfortable, with a hunched posture and refuse to lie down.

Signs of pancreatitis in cats can be vague, with a loss of appetite, weight loss, rarely vomiting and even changes in behavior (hiding, vocalizing).

Because of the proximity of the pancreas to the liver and gall bladder, some patients become icteric (jaundiced) or develop other signs of liver disease.

Diagnosis

Pancreatitis can sometimes be confirmed with specific blood tests which measure pancreatic enzymes, but these tests can be unreliable in some patients. Often these are done in combination with other biochemical tests to assess other organ systems. A CBC will likely be recommended to determine white blood count as it is an indicator of the degree of inflammation.

Often radiographs and/or ultrasound exam is recommended to evaluate the pancreas and look for potential complications such as inflammation of other abdominal structures or pancreatic nodules, abscesses or tumors. Abdominal ultrasound by an experienced veterinary radiologist is a more accurate way of assessing the pancreas than other tests.

In rare cases, a biopsy of the pancreas may be suggested if a tumor or bacterial infection is suspected.

Treatment
Pancreatitis is treated symptomatically and supportively. There are no medications which specifically treat pancreatitis. Most patients require hospitalization for fluids and supportive care. The pancreas must be "rested" in order to heal, and this often requires the removal of food and water for a period of time. When restarting food, an ultra-low-fat diet is used to reduce pancreatic workload. Long term, low-fat prescription diets are often prescribed in dogs.

Anti-nausea medications and antacids are often used to relieve symptoms. Broad-spectrum antibiotics are indicated if there is evidence of or suspicion for infection.

Hyperbaric oxygen therapy has been used as adjunctive therapy of pancreatitis in recent years. This therapy is administered in a special chamber, where oxygen is delivered at a high concentration and pressure. Because severe pancreatic inflammation often results in areas of the pancreas and surrounding structures not receiving adequate oxygen supply, this therapy helps preserve oxygenation of these tissues and promotes healing. HBOT therapy is not available at most veterinary facilities but is becoming an increasingly common option at some specialty hospitals like Veterinary Specialty Center. HBOT therapy tends to reduce symptoms as well as the length of hospital stay for veterinary patients with pancreatitis.

In rare cases, the pancreatic inflammation causes obstruction of the bile duct and requires surgical correction. Additionally, an infected pancreas which develops and abscess may be surgically addressed as well. Surgery of the pancreas is risky, so the decision to go to surgery is not considered lightly, and the potential risks and benefits of going forward with surgery should be discussed with a veterinary surgical specialist.

Prognosis
Patients with uncomplicated pancreatitis generally recover fully, but we recommend feeding a low-fat diet for long term maintenance. Patients with severe pancreatic inflammation, particularly those that have complications such as peritonitis or biliary obstruction, can have a more variable prognosis. Because scarring can occur in the pancreas, some patients develop secondary diabetes.

Long Term Follow-Up
Patients that are treated for low-grade pancreatitis and have an uneventful recovery are likely to be released on a long term, fat-restricted prescription diet and not need additional specialty care. Most patients with severe pancreatitis are followed by the internal medicine specialists at Veterinary Specialty Center. Patients that develop a significant complication of pancreatitis, such as biliary obstruction or diabetes may need long term follow-up with the internist for monitoring, medication and diet adjustment. Because decisions about changes in medication are based on observations made during the physical exam in addition to other testing, our recommendation is that follow up for this disease be done at Veterinary Specialty Center. All routine preventive care should continue with your primary care veterinarian.