

Metropolitan Veterinary Hospital

Akron Veterinary Internal Medicine/Oncology Practice

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Exocrine Pancreatic Insufficiency

Client Handout

One of the functions of the pancreas is to make compounds called enzymes that help to digest proteins, fats and sugars. When the pancreas doesn't make sufficient amounts of these compounds it is referred to as exocrine pancreatic insufficiency (EPI).

EPI is most commonly caused by atrophy (decrease in size) of pancreatic cells; the cause of this is unknown. Other much less common causes include chronic pancreatitis (inflammation in the pancreas) and infiltrative diseases such as cancer.

If a pet is diagnosed with EPI it means that he is unable to break down proteins, fats and carbohydrates appropriately and is then not able to absorb these nutrients from the intestines. This results in decreased absorption and loss of these important nutrients into the stool. It is not until 85-90% of the secretory capacity of the pancreas is lost that mal-absorption occurs. Chronically affected pets often suffer from mal-nutrition.

Pets that have EPI are often initially presented for weight loss with a ravenous appetite. It is not uncommon to see pets that eat abnormal things, even their own stool. Diarrhea is frequently present as the disease progresses and vomiting is occasionally seen as well. An oily, greasy hair coat and rancid smell are also encountered. Although less common, anorexia can occur.

While any breed of any age can develop EPI there seems to be a high prevalence in young German Shepherd dogs. Cats that develop EPI often do so as a result of chronic pancreatitis.

The most reliable way to diagnose EPI is by using a simple blood test called a serum Trypsin-Like Immunoreactivity Assay (TLI). This should be a fasted sample and results are usually available within a week. The test is both sensitive and specific meaning that if the TLI is low then your pet is likely affected.

Other problems occasionally seen in association with EPI are an overgrowth of bacteria in the small intestine and an atrophy of the intestinal cells that help absorption. To check for bacterial overgrowth a blood test to look for abnormal folate or cobalamin levels is available.

The treatment for EPI includes replacing the enzymes that are lost. There are a number of oral products available. The product that has been proven to be most consistently bioavailable is powdered pancreatic enzyme replacement (Viokase, Pancreazyme). While most animals do very well with therapy, as many as 20% show a suboptimal response. Increased appetite, soft stools and inability to gain weight are all problems that may still be seen. Other problems such as bacterial overgrowth may contribute to the decreased response to enzyme replacement. For these animals treatment with antibiotics such as Metronidazole or Tylosin in addition to enzymes could be beneficial. A diet that is low in insoluble or nonfermentable fibers should be used; an example of this is Hill's prescription diet I/d. Drugs such as Cimetidine that decrease the acidity of the stomach may be beneficial by enabling intact enzymes to make it into the small intestine instead of being broken down in the stomach.

In animals that have been malnourished for a long time it may be necessary to initially supplement vitamins as well. Cobalamin (vitamin B) is the one that is generally needed; this may be particularly true in cats. Vitamin B is administered via injection about once a month until the appropriate levels are reached.

Treatment of EPI is life-long, but with appropriate therapy most pets can live normal, healthy lives.