## **FELINE TRIAD DISEASE**

Feline Triad Disease is a newly described syndrome of middle aged and older cats. In this disease white blood cells called lymphocytes and plasmacytes invade the liver, pancreas and the lining of the stomach and/or intestines. These cells are normal components of the immune system that with Triad Disease accumulate in huge numbers where there should only be a few of them. They seem to respond as if the body is reacting to a foreign invader. In other words, the immune system overreacts to something normally present in the intestinal contents or the body. In some cats these cells seem to be reacting to something in the diet and in other cats we're not sure perhaps it's to a particular bacteria or other substance.

These cells usually start causing trouble in the lining of the intestinal tract first. Abnormal cells may then move up the ducts from the intestine to the liver and pancreas. Affected organs become swollen and clogged with plasmacytes and lymphocytes. The intestine, stomach or other organ becomes thickened and inflamed and can no longer function properly. For some cats the stomach or intestines may be most affected, in other cats the liver or pancreas, and in the worst cases all four areas are severely involved.

Early symptoms may include poor appetite, weight loss, vomiting or diarrhea. The symptoms can wax and wane but usually slowly worsen with time. These same symptoms can also be caused by other diseases, including kidney disease, hyperthyroidism, cancer or other forms of liver disease. Blood and stool tests are done to rule out other possible causes of disease and to give us information on how the liver is functioning. Sometimes more than one disease is present at the same time, making diagnosis and treatment more complicated.

When lymphocytes and plasmacytes accumulate only in the gastrointestinal tract the disease is called Inflammatory Bowel Disease (IBD). In the liver it causes hepatitis and in the pancreas, pancreatitis. Each of these diseases can be caused by other things besides Triad Disease, so testing will be necessary to reach a diagnosis. An ultrasound scan of the abdomen or endoscopy may be recommended. The ultrasound scan can tell us about the size, shape and consistency of the internal organs. Sometimes inflammation of the pancreas will show up as well. There are blood tests that can help diagnose pancreatitis and IBD, or IBD may be diagnosed by biopsy of the affected organs. A needle biopsy of the liver can often be obtained guided by the ultrasound image. Intestinal biopsies can be obtained via surgery or an endoscope. The pancreas and liver can be biopsied via laparoscopy or exploratory laparotomy. Pancreatitis is the most difficult of the three diseases to diagnose in cats. Sometimes we will treat a cat for pancreatitis even if we aren't sure the disease is present.

Treatment is aimed at each organ system, depending on what is most involved. It is common to try special diets, aiming for bland, hypoallergenic or liver-sparing prescription foods, depending on the cat. Medications to suppress the immune system,



antibiotics for intestinal bacteria that may be worsening the problem, anti-parasitic drugs, enzyme supplements to help digest food, potassium supplementation, drugs and herbs for liver disease and other supportive care may all be required. If the cat is very ill and appetite is poor a feeding tube may be recommended to support nutrition until the cat is eating better on its own. Luckily many of these medications can be mixed into food. Treatment is required for the rest of the cat's life, though the diet and the medications needed may change with time.

All three of the diseases that constitute Triad Disease - IBD, hepatitis and pancreatitis - can also exist independently or from other causes, so repeated diagnostic testing will be required to decide how to treat the symptoms and to monitor the course of the disease. Kidney disease, thyroid disease or cancer can all have similar signs but very different treatments. Multiple problems may be present at the same time or develop later on. IBD can progress to intestinal cancer. Eventually Triad disease will become severe and advanced and treatment will no longer be effective, though this can take several years. The earlier it is diagnosed the better the outcome and longevity of the cat.

Although diagnosis and treatment of triad disease is difficult and often costly, treatment may also be very rewarding. In the early stages a simple change to a hypoallergenic diet and frequent monitoring may be all that's required. The response to medication can be dramatic in some cases and most cats do very well in the early stages. For the best outcome a good, close working relationship with your cat's veterinarian is required! Please call us with any questions you may have.