I love cats. Seriously, I’m a cat guy, and I’m not embarrassed to admit it. There can be no doubt they definitely are not small dogs. They have so many unique health issues, including a problem called triaditis. I recently received a message requesting more information about this syndrome. So, this week’s post is all about triaditis in our feline friends. Happy reading!

**Triaditis – What is it?**

Triaditis is a syndrome of concurrent pancreatitis (inflammation of the pancreas), inflammatory bowel disease (IBD), and cholangitis (inflammation of the bile duct
Pancreatitis may be acute or chronic with the latter being more common in cats. In some studies, Siamese cats have been over-represented for pancreatitis. There are three recognized forms of cholangitis – neutrophilic, lymphocytic, and fluke-associated. A biopsy is required to differentiate these forms. Cats with acute neutrophilic cholangitis tend to be younger than those with chronic cholangitis. To read more about IBD, click here.

This syndrome is relatively common, but we veterinarians don’t know exactly what causes it. Research has suggested some logical possibilities:

- Ascending bacterial infection from the duodenum (1st part of the small intestine into the pancreas and liver
- Translocation of bacteria and various antigens from an inflamed intestinal tract into the liver and pancreas to induce more inflammation and antibody production
- Special immune cells called memory lymphocytes that form due to inflammatory bowel disease may migrate to the liver and pancreas where they are activated to cause inflammation and tissue damage

Illustration of the relationship between the liver, pancreas, and small intestine in a cat. Image courtesy of veterinary technical specialist Sarah Collins.

**Triaditis - What does it look like?**

There is no known age, sex, or breed predisposition for triaditis. Interestingly despite having inflammation in three separate organs (i.e.: liver, pancreas, and small intestines), many cats have subclinical disease. When clinical signs are present, there are chiefly referable to the liver. Common clinical signs include:
- Lethargy
- Dehydration
- Reduced (or loss of) appetite
- Vomiting
- Diarrhea
- Icterus (aka jaundice or yellowing of skin and sclera, the “whites” of the eyes)

Icterus/jaundice of the pinna or ear flap of a cat. Image courtesy of board-certified internal medicine specialist, Dr. Craig Webb.

**Triaditis - How is it diagnosed?**

Initially, your family veterinarian will obtain a complete patient history and perform a thorough physical examination. A variety of testing is indicated, including:

- Complete blood count - to assess red blood cells, white blood cells, and platelets
- Biochemical profile - to help assess liver and kidney function and measure electrolytes
- Urinalysis - to help assess kidney function
- Gastrointestinal profile - to help assess pancreatic function and various B vitamins, most notably cobalamin (B12) and folate (B9)
- Fecal testing – to rule out endoparasitism (intestinal “worms”) as a cause of clinical signs
- Abdominal imaging – radiographs (x-rays) and sonography are often recommended to help assess size and architecture of abdominal organs, particularly the liver, pancreas, and small intestine
- Infectious disease testing – screening for feline leukemia virus, feline
immunodeficiency virus, toxoplasmosis, feline infectious peritonitis is very important

Ultimately biopsies and culture of the liver, small intestine, and the pancreas are needed for a definitive diagnosis. Pet parents may find it helpful to partner with a board-certified veterinary internal medicine specialist to develop a cost-effective and logical diagnostic plan.

**Triaditis - How is it treated?**

Treatment for triaditis is consistent with treatment for pancreatitis, IBD, and cholangitis. Major interventions may include:

- Dietary modification - transitioning a patient to a hypoallergenic or novel protein diet may be helpful
- Anti-emetic therapy - controlling nausea is of paramount important
- Nutritional support - providing appetite stimulants and/or placing temporary supplemental feeding tubes may be instrumental in helping patients fight this clinical syndrome
- Immunomodulatory therapy - administration of drugs that help reduce inflammation in the liver, pancreas, and small intestine is often pivotal in the therapy of triaditis
- Vitamin supplementation - provision of vitamin B12, vitamin B9, vitamin K1, and/or vitamin E may be very helpful
- Antioxidant therapy - giving cats certain antioxidants like s-adenosylmethionine (SAMe) and vitamin E is of paramount importance
- Antimicrobial therapy - patients with bacterial infections benefit from appropriate antibiotic therapy
- Biliary support - a medication called ursodeoxycholic acid reduces toxic components in bile and allows bile to flow more efficiently
- Pain medication - many patients with triaditis have abdominal discomfort and thus benefit from analgesia

Prognosis for triaditis is quite variable. Those with acute pancreatitis and/or neutrophilic cholangitis tend to have poorer prognoses. However, many cats respond successfully to therapies and go on to lead high quality lengthy lives. Families may find collaborating with a board-certified veterinary internal medicine specialist uniquely helpful for developing an effective treatment plan.
The take-away message about triaditis in cats...

Triaditis - concurrent inflammation of the pancreas, liver, and small intestine - is a relatively common syndrome in cats. A thorough diagnostic investigation needed to make an accurate and definitive diagnosis. With timely and appropriate intervention, many cats have favorable prognoses.

To find a board-certified veterinary internal medicine specialist, please visit the American College of Veterinary Internal Medicine.

Wishing you wet-nosed kisses,

CriticalCareDVM