VETERINARY SPECIALTY CENTER

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Feline Infectious Peritonitis (FIP)

Feline Infectious Peritonitis (FIP) is a devastating disease that is unique to cats. FIP is sometimes referred to as a syndrome because there are aspects of this disease that are not fully understood.

Cause

The disease results from a viral infection called coronavirus causing wide-spread and severe inflammation in the body. The resulting inflammation can cause organ failure, fevers unresponsive to antibiotics, and in many cases, an accumulation of thick yellow fluid in the chest or abdomen.

Feline infectious peritonitis is an aberrant reaction to infection with the feline coronavirus. The feline coronavirus is quite common; most cats that become infected develop a mild gastrointestinal illness and recover uneventfully. The cats that develop the disease called FIP do so likely because their particular intestinal virus mutates in a way that allows it to penetrate other bodily tissues; also, their body's response to the viral infection is inappropriate. Because there is no currently available test to distinguish between the "normal", mild intestinal form of feline coronavirus, and the mutated one (studies are ongoing), it can be very difficult to confirm the diagnosis of FIP.

Feline coronavirus is common in cats, especially cats that are in crowded situations like shelters or breeding facilities. The disease is spread from cat to cat through contact with feces in shared litterboxes or on surfaces. After exposure, some cats will shed active (infective) virus for weeks to months. Cats in multi-cat households can become re-infected. Some of the infected cats in the house will have no sign of disease; others may have mild gastrointestinal illness while one may come down with the severe form of the disease called FIP. In many cases, families are unaware that one or more of their cats have feline coronavirus.

FIP can occur at any age but is more common in cats less than one year of age when their immune system is not fully functional. Other reasons for immune compromise can also predispose to the development of the disease. Crowding, like that seen in shelters and catteries, is a common factor, but any source of stress can increase risk. There are genetic factors that predispose certain cats to FIP (often purebred) and make other cats resistant to infection.

Clinical Signs

There are different ways in which FIP manifests. With the wet or effusive form of FIP, the patient develops fluid in the chest or abdomen that seriously interferes with breathing and normal organ function. Patients with the wet form of the disease are gravely ill and survival is sadly measured in days to occasionally weeks. Cats with the dry form do not develop fluid in their body cavities but have insidious signs of illness such as fever and weight loss. These patient's signs can wax and wane over months or even years. Both forms are eventually fatal. FIP is a disease that is unique to cats; no other species of animal is at risk of disease after exposure to feline coronavirus.

Diagnosis

If a cat is suspected of having FIP, tests will be done to search for other diseases that may play a role in immune compromise, as well as other sources of the symptoms. There is no effective therapy for FIP; this fact strongly motivates veterinarians to search for other potential causes for cats that are suspected of having the disease. Identifying the virus (through DNA identification) outside of normal gastrointestinal tissues, especially in cats with the characteristic type of inflammation associated with it called pyogranulomatous inflammation, is considered confirmatory.

Treatment

Although there is no therapy that will prevent death in patients with FIP, there are some therapies that may slow the progression of the patient's decline.

Some patients will respond to steroids that reduce inflammation such as prednisolone and some chemotherapy medications. These medications carry some risks but may allow for short term improvement in the quality of life and survival.

Removing the effusion, particularly when it is in the chest cavity, will make cats feel better temporarily. The length of time this will help varies widely, from hours to weeks depending on the patient.

An experimental oral medication called polyprenyl immunostimulant has been found to slow progression in cats that have the DRY form of FIP. Sadly, this immunostimulant has no beneficial effect on cats with the wet or effusive form of FIP.

There are no other therapies that have been found to be beneficial for the treatment of FIP at this time. It is important to know that multiple studies into both prevention and therapy are ongoing at multiple institutions, and therapeutic treatments are awaiting FDA trial.

When a cat is suspected of having FIP, it is logical to be concerned about the other cats in the house. Because of genetic predispositions, if there is a blood-related cat in the house, there is more cause for concern. Absent any additional stressors, like overcrowding or compromised immune systems, the remaining cats in the house do not have a higher risk of development of FIP than any other cat in the general population. There is no need or benefit to sanitizing the home environment because all cats living together are exposed to feline coronavirus, but only some come down with FIP.

Prognosis

Both the wet and the dry form of FIP are eventually fatal, but patients with the dry form sometimes enjoy a long survival with the help of the new immunostimulant. Patients with the wet form can sometimes have short term relief with medications and interventions, but sadly, most succumb to the disease within days to weeks of diagnosis.

Long Term Follow-Up

Patients with the dry form of FIP, particularly those that are started on the immunostimulant polyprenyl, usually follow up with the internal medicine specialists at Veterinary Specialty Center for care. These patients sometimes enjoy a long survival, and monitoring over time is likely to improve the outcome.