My cat recently died because he was infected with Cytauxzoon. Is this disease a big problem in Oklahoma and how do cats become infected?

Cytauxzoonosis is usually a fatal disease affecting domestic cats. The agent that causes the disease is the protozoal organism, Cytauxzoon felis. The natural reservoir host is the North American bobcat, which harbors the disease but does not die from it. This disease has been reported in Oklahoma, Kansas, Arkansas, and Missouri as well as some south and southeastern states.

The organism is transferred to cats by ticks. The parasite invades the white and red blood cells of cats causing a rapidly progressive and usually fatal illness. Most cats become affected during the spring and summer months which coincide with tick season. Most affected cats have had access to the outdoors, especially wooded environments.

The early symptoms seen in infected cats are often non-specific and include decreased activity and appetite. Other symptoms include a high fever, weakness, depression, jaundice (yellow discoloration of skin and gums), and rapid breathing.

The disease progresses rapidly. Death can occur as soon as 5 days after the onset of symptoms. The organism infects white blood cells where it reproduces. These white blood cells become large and distended with developing organisms, and these block blood flow through small blood vessels.

Most body organs are affected by this decreased or absent blood flow. This causes other effects, and cats often accumulate fluid in their lungs, anemia and blood clotting abnormalities. Many of the smaller developing organisms rupture out of the white blood cells and then invade red blood cells causing severe anemia.

The diagnosis of this condition requires visualization of the organism in red blood cells using a standard microscope and routine blood smear.

Other laboratory tests are usually done on presentation to determine if other organs have been

affected by this organism. Abnormalities may include anemia (a decrease in red blood cell numbers), and a reduction in white blood cells and platelets. Platelets are needed to help form blood clots and affected cats may have bleeding tendencies.

Unfortunately, there is no known cure for cytauxzoonosis at this time. Studies are currently underway evaluating different treatment protocols (antiprotozoal drugs), but none have been consistently successful in eliminating the organism.

Treatment consists of intensive supportive care as these cats are critically ill. At the Oklahoma State University Center for Veterinary Health Sciences Veterinary Teaching Hospital cats are placed in the Intensive Care Unit, where they receive 24 hour a day care by internal medicine specialists, certified veterinary technicians and fourth year veterinary medicine students.

Intravenous fluid therapy to combat dehydration, feeding tube placement to provide nutritional support, and oxygen supplementation are the usual treatments. If needed, pain medication can be provided. Cats are given antibiotics since their white blood cell counts are often very low and medications may be needed to prevent clotting abnormalities. Blood transfusions are given if the anemia is severe. Early intervention is vital to the success of any therapy.

Preventive care includes keeping cats indoor during spring, summer and early fall, using a tick preventative such as Frontline (Merial Co.) every 3 to 4 weeks during peak tick season, and keeping grassy areas mowed.

Currently there is a study underway at OSU's Veterinary Teaching Hospital evaluating the use of a new treatment protocol for Cytauxzoonosis. Interested parties should contact the Teaching Hospital at (405) 744-7000 for more information.

This column is provided by the faculty of the OSU Boren Veterinary Medical Teaching Hospital.

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