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Canine Anaplasmosis

What is Anaplasmosis?

Anaplasmosis is an infectious disease that is caused by a bacterium called *Anaplasma phagocytophilum*. This lives inside of the white blood cells and can cause a variety of problems. Anaplasma was formerly called *Ehrlichia equi*, so you may hear this disease referred to as Ehrlichiosis. This can infect both dogs and cats.

How does an animal get infected with Anaplasma?

Deer ticks carry this bacterium. Tick bites spread the infection. Deer ticks can carry other parasites, including Lyme disease, so we do see pets with multiple infections. It is very important to check for other infections when we suspect Anaplasmosis.

What are the signs of Anaplasmosis?

In general most pets will show signs within 10-14 days after getting the infection. However, there are some cases where the pet will become sick months later. In most cases the signs appear suddenly.

The most common signs of infection are high fever, lethargy, and swollen painful joints (this can be dramatic). The pets become dumpy, will not eat well, and will be reluctant to move. Painful joints can shift from leg to leg and they may cry when they try to move.

Other signs of infection include vomiting, diarrhea, and neurological signs. We have seen dogs have seizures and other brain disorders with Anaplasmosis. Some pets may develop liver and kidney damage with the infection. This usually goes away with treatment, but we will want to be sure that there is no permanent damage. Some pets may develop bleeding disorders that show up as nosebleeds, bloody urine, or severe bruising on the skin.

Some pets may carry Anaplasmosis but show no signs whatsoever. In these cases, the infection may eventually be cleared by the immune system or the pet may become sick down the road (especially with periods of stress).

How is Anaplasmosis diagnosed?

Diagnosing this disease may be difficult in some cases. Here are the tests we recommend and how they help us diagnose and treat your pet:

4Dx Test: This screens for Lyme disease and another tick disease called *Ehrlichia canis*. Dogs can have multiple infections. We have found that dogs with multiple infections are more likely to become sick and more likely to have

internal organ damage.

Complete Blood Count: This test measures and evaluates the cells that circulate in the bloodstream. Most dogs with Anaplasmosis will have abnormal cell counts. The platelets (which help the blood clot correctly) and the red blood cells are usually lower than normal. The white blood cell count is usually low and in about half of cases we will see the bacteria inside of the white blood cells.

Chemistry Profile: This test looks at the internal organ function. It is very important to evaluate the internal organs to make sure there is no damage. This also helps us plan how aggressively we need to treat your pet to have a good outcome.

Urinalysis: Pets may have kidney damage with this infection. Evaluating the urine will check for kidney damage and allow us to plan our treatment. Our greatest fear is that pets may develop permanent damage, which is rare.

In some cases we need to run special tests. These tests are sent to outside laboratories, which means there is a delay before we get results. One test that we may run is an antibody test, which tells us if the body has been exposed to Anaplasmosis. The other available test is a DNA test that looks for Anaplasma DNA in the bloodstream. These tests are most helpful in difficult cases where we do not have a clear diagnosis on our initial bloodwork.

How is Anaplasmosis treated?

Doxycycline is an antibiotic that we use to kill Anaplasma. This is given once or twice daily, depending on the situation, for 4 weeks (although sometimes we will treat for a longer period of time). It is very important to give all the medications as directed. The number one side effect of this drug is stomach upset, which can usually be avoided if given with a meal. Pain medication, in the form of non-steroidal anti-inflammatory, is commonly prescribed along with the antibiotic.

In severe cases, we may need to give other medications and treatments. If there are bleeding problems or organ damage, we may even need to keep the pet in the hospital for advanced care.

What is the prognosis?

With proper treatment the prognosis is good. Most pets respond within 1-4 days and will make a complete recovery. We have occasionally seen dogs that have developed immune system problems after an infection with Anaplasmosis. In these cases the dogs require anti-inflammatory medications in addition to antibiotics.

Can anything be done to prevent it?

Good tick control is vital. We stock products that are safe and effective. Pets never develop a strong immunity to this infection, so we can see pets develop multiple Anaplasma infections over the years.

Can I get Anaplasmosis from my pet?

No. Humans can get Anaplasmosis, but we get it from tick bites. You cannot get the infection directly from your pet. Keep in mind that if your pet is infected you have Anaplasma in your area, so be very aware of ticks on you and your family