



## **EHRlichia CANIS**

is a tick-borne infection of the white blood cells, that can eventually affect bone marrow function, including blood cell production.

### **What Causes Ehrlichiosis?**

Ehrlichiosis in dogs is most commonly caused by Ehrlichia canis, E. chaffeensis, E. ewingii, and possibly E. ruminantium. There are multiple strains of Ehrlichia, affecting different species of animals. Some also affect people.

### **How Is Ehrlichia Transmitted?**

Ehrlichia is transmitted by ticks. The immature form of the tick feeds on the blood of an animal infected with Ehrlichia. When these ticks take blood from another animal, the Ehrlichia is passed on to that animal. The Ehrlichia can remain alive in the developing tick for up to 5 months. This means a tick could become infected and then not infect another dog until 5 months later.

### **Signs And Symptoms Can Include:-**

- Lack of energy
- Loss of appetite
- Runny eyes and nose/discharge
- Spontaneous nose bleeds
- Bruising on gums and belly
- Lameness/joint pain
- Anaemia
- Fever

### **The Phases Of Ehrlichia**

Ehrlichiosis can have three phases. Signs of the acute phase of the disease usually develop 1-3 weeks after the bite of the infected tick. The acute phase of the disease generally lasts 2-4 weeks. The Ehrlichia enter white blood cells and reproduce inside them. In addition to the blood, these cells are found in the lymph nodes, spleen, liver, and bone marrow. Platelets, the small cell fragments that help blood to clot, are often destroyed, as well. As a result of the infection, the lymph nodes, liver, and spleen are often enlarged.

Since one tick could be infected with and transmit more than one disease, it is not uncommon to see a dog infected with more than one of these diseases at a time, which generally causes more severe symptoms.

## **Diagnosis**

The diagnosis is based on the typical clinical signs and results of special blood tests.

A veterinary surgeon cannot rely solely on these tests to make a diagnosis. The antibodies may not be detected in the early phase of the disease, since it takes some time for the body to produce them. Also, if a dog is extremely ill, he may not be able to produce enough antibodies to be accurately detected. A positive test demonstrates that the dog has been exposed to Ehrlichia, but not that he necessarily is currently infected. Often two tests will be done 2 weeks apart and the results compared. Dogs with an active infection will show a significant rise in the amount of antibody present.

## **Treatment**

The antibiotics, tetracycline or doxycycline are used. Treatment is usually for 3-4 weeks, even though the dog's symptoms generally improve after several days of therapy. Some dogs will need blood transfusions or intravenous fluids depending on how severely affected the dog is. If the animal is treated properly and in the early stages the outcome is usually good. The prognosis for dogs in a later stage is not as good. German Shepherds and Doberman Pinschers tend to have a more severe chronic form of the disease.

The drug, imidocarb dipropionate, is sometimes used in conjunction with the antibiotics. It is given as an injection, but may not be available in all areas.

## **Prevention**

Tick control is the main way to prevent ehrlichiosis.

- using an appropriate tick control product is essential.
- avoiding high risk areas, particularly during periods of peak tick activity during Spring and Autumn, can help.
- carefully examining your dog after walks to identify and then remove ticks is important, as removal of ticks within 48 hours of attachment helps to reduce the risk of disease transmission.

Prevention is covered fully in the "PREVENTION OF DISEASES IN DOGS" factsheet

**Don't forget that Ehrlichia can affect humans too, so take appropriate steps to protect yourself against ticks, such as covering up exposed skin and checking yourself carefully for ticks.**