Desert Hills
ANIMAL CLINIC
Family Healthcare for your Pet

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EHRLICHIOSIS - (Tick Fever)

What is Ehrlichiosis?

Canine Ehrlichiosis (tick fever), is a disease carried by the brown dog tick. It is a tick-borne rickettsial disease ofwhich the main clinically important organisms include *Ehrlichia canis*, causing canine ehrlichiosis and is found inside white blood cells, and *Ehrlichia platys*, causing infectious cyclic thrombocytopenia (periodic low platelet counts) and is found inside the platelets.

Cats can be infected with *Ehrlichia risticii*, and there is evidence to suggest that a species similar to *Ehrlichia canis* can cause illness in cats as well.

What Does the Organism Do To the Pet?

Ehrlichia canis: Ticks (brown dog tick) transmit the disease to dogs in their saliva. Following a 1-3 week incubation period, three stages of disease may occur.

1) Acute: Spreads from the bite site to the spleen, liver, and lymph nodes.
2) Produces inflamed blood vessels resulting in a reduction in platelet survival time causing thrombocytopenia (low platelet count), variable leukopenia (low white blood cell count),and mild anemia (low red blood cell count).
3) Subclinical: The organism persists and antibody response increases (high globulin levels). Thrombocytopenia persists.
4) Chronic: Impaired bone marrow production (platelet and red blood cell production is suppressed). The systems affected includes most of the body due to bleeding tendencies from thrombocytopenia and inflamed blood vessels, enlarged lymph nodes, enlarged spleen, brain inflammation, eye inflammation, and occasionally lung inflammation.

The geographic distribution is worldwide. Within North America, it is mainly along the Gulf coast and eastern seaboard, but also in the Midwest, Arizona, and California.

What Are Its Symptoms?

The duration of clinical signs from initial acute illness until it is brought to the veterinarian is often more than two months. The chronic form of *Ehrlichia canis* seems to be more severe in Doberman pinschers and German shepherds.

The symptoms may include: Lethargy; Depression; Loss of appetite; Weight loss; Fever; Spontaneous bleeding (sneezing, nose bleeds); Breathing distress; Neurologic signs (poor balance, head tilt, seizures); Eye pain and inflammation.

On physical examination some of the signs present may include:

1) Acute condition: Bleeding into the skin or gums and a fever (associated with depression, lost appetite, weight loss) and generalized lymph node enlargement. Ticks are present in the acute stage 40% of time. Respiratory signs, including difficult breathing (even blue gums) may be present. A variety of nervous system signs may also be present. bleeding; Anemia; Enlarged lymph nodes; Scrotal and limb swelling; Enlarged spleen or liver; Various eye inflammatory changes; Rarely, arthritis and seizures.
2) Typical early signs of the disease may include fever, listlessness, depression, loss of appetite, weight loss, pale gums (anemia), vomiting, and diarrhea. These signs may initially be very mild. Pets can be infected with the tick fever organism for weeks to months before clinical signs develop, therefore, you may not recall ever finding any ticks on your pet. It only takes the bite of one infected tick to spread the disease to a pet.

As the disease progresses, the dog may develop frequent nosebleeds (epistaxis). The gums may become pale with a yellow cast (jaundice). Some animals develop a dry cough. Lameness, and swollen joints may also occur. Secondary bacterial infections are also common.

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EHRLICHIOSIS - (Cont.)

How is Ehrlichia Diagnosed?
Ehrlichiosis can be diagnosed by taking a blood sample and submitting it to a laboratory for a special test although the veterinarian may suspect the disease based upon clinical signs, red blood cell counts, and platelet numbers. Our "heartworm test" is an in-office screening test for heartworms, Ehrlichia antibodies, and Lyme disease antibodies. A positive test for Ehrlichia is often followed with a more specific test at the laboratory.

How is it Treated?
Patients with anemia and/or hemorrhagic tendency resulting from thrombocytopenia should be hospitalized for initial medical stabilization. Stable patients can be treated as outpatients with monitoring of blood picture and response to medication.

ACTIVITY: Restricted to prevent hemorrhagic episodes.

PROGNOSIS
• With therapy an excellent prognosis is expected in most acute cases. The response may take a month or more in chronic cases, unless the bone marrow is severely affected, in which case the prognosis is poor.
• Progression of disease from acute to chronic form can be prevented by early, effective treatment.
• German shepherds and Doberman pinschers display a more chronic and severe form of the disease.

MEDICATIONS
Treatment for Ehrlichiosis usually involves oral tetracyclines (i.e. doxycycline). Recently, an injectable medication (imidocarb dipropionate) has become an alternative treatment. Severe cases may require supportive therapy such as blood transfusions, intravenous fluids, and other nursing care. Medications may be used to protect the platelets and red blood cells (cortisones) and to help stimulate their production (anabolic steroids). In some cases, 3-6 months or more of therapy may be required. Some pets will die of the disease even with aggressive care though.

PATIENT MONITORING:
• Platelet counts are performed after initiating medication until showing an increase into normal range.
• A repeat blood titer is done in 9 months. If treatment has been successful, most dogs will be seronegative or have a very low titer. A strong positive titer suggests reinfection
(prior infection does not imply protective immunity) or ineffective first treatment, and a subsequent treatment regimen should be instituted.

PREVENTION: To aid in the prevention of Ehrlichiosis, tick control is imperative. Successfully treated dogs are very susceptible to a repeat exposure of the disease. Because of this, prevention of tick exposure is of the utmost importance.

If you should have any questions concerning canine Ehrlichiosis and tick control, consult your veterinarian.

Special instructions: _____

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Thank you for this opportunity to serve you

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