

## **Feline Infectious Anemia (Hemobartonellosis)**

Feline Infectious Anemia (FIA) is a blood disease of cats caused by a microscopic parasite called *Hemobartonella felis* (*H. felis*). It was recently renamed to *Mycoplasma haemofelis* (*M. haemofelis*). Because of the organism's old name, this disease is also sometimes called hemobartonellosis or "hemobart" for short. This organism attaches to the surface of the cat's red blood cells, where its presence is eventually detected by the immune system. Once the immune system recognizes the parasite, it attempts to eliminate it by destroying the red blood cells. With destruction of a large number of red cells, anemia results.

### **Contributing Factors**

Identified risk factors for FIA include anemia, positive feline leukemia virus (FeLV) status, positive feline immunodeficiency virus (FIV) status, access to the outdoors, a history of cat-fight wounds, and lack of vaccinations. Male cats are probably at greater risk.

Cats with FIA should be screened for the presence of immunosuppressive viruses. The primary viruses are FeLV and the FIV. These viruses can serve as stresses, which promote development of FIA. If one or both of the viruses is found, the prognosis for recovery is more unpredictable than in the virus-negative cat.

### **Prevalence**

The true prevalence of the disease is unknown because of the difficulty in identifying the organism and its inconsistent presence in the bloodstream. The prevalence is higher in sick cats than in healthy cats. Estimates of its presence in sick cats ranges from 0 - 28% of cats examined.

### **Clinical Signs**

Reported clinical signs include depression, weakness, jaundice, weight loss, anemia, enlargement of the spleen, and death.

### **Causes/Transmission**

Although the method of transmission has not been conclusively demonstrated, it is thought to be spread between cats by blood-sucking insects, especially fleas. Experimentally, the organism has been transmitted between cats by blood transfusion. Newborn kittens may be infected, but it has not been proven if the infection is established through the placenta, during birth, or by nursing the mother.

### **Diagnosis**

Because *M. haemofelis* can be found on the red blood cells of healthy cats, detection of the organism does not always equate with a diagnosis of FIA. In many cases of FIA, the cat has a concurrent disease or another form of stress. This state of debilitation then triggers *M. haemofelis* and allows the development of FIA.

Diagnosis of this disease is made from a fresh blood smear, which is stained and examined microscopically. If the cat is anemic and large numbers of *M. haemofelis* are present, the diagnosis of FIA is made. Unfortunately, *M. haemofelis* is not always present on the cat's red blood cells because it appears in the blood stream in cycles. If FIA is suspected, it may be necessary to examine several blood samples before *M. haemofelis* is identified.

### **Treatment**

Treatment is relatively simple and usually successful. Most often, antibiotics such as doxycycline, tetracycline, oxytetracycline or enrofloxacin are used. The drugs are not expected to clear the organism completely but, instead, suppress its replication in the cat's body. Doxycycline can cause esophageal strictures in cats when given as a pill. If a pill form is used, be sure to give the cat 1-2 teaspoons of water after administering the pill to be sure it is swallowed completely. Conversely, a liquid formulation of the drug can be used.

Additional treatments may involve a blood transfusion for severely anemic cats, as well as prednisone for temporary suppression of immune-destruction of the red blood cells.

### **Prognosis**

If treatment is not initiated in the acute phase, up to one-third of all cats with FIA will die. Cats who recover from the early stages of the disease will become chronic carriers of the organism and are thought to be susceptible to relapse with periods of stress or illness. With chronic infection, it may be impossible to detect the organism in the blood because it is present in such low numbers.

### **Transmission to Humans**

This disease is not transmitted to humans.

### **Prevention**

Although there is no way to completely prevent the disease, chances of contracting the disease may be lessened by keeping cats indoors and controlling fleas and ticks.