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Feline Herpesvirus Keratoconjunctivitis

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BASIC INFORMATION

Description and Cause

Feline herpesvirus (FHV) infection is a common upper respiratory infection of cats. Most cats are exposed at some point during their life. In some cats, the virus is not cleared but only goes into remission (becomes latent) and can become reactivated during times of stress or illness. The virus often infects the surface tissues of the eye, affecting the cornea and conjunctiva. FHV may be the most common cause of chronic keratoconjunctivitis (corneal-conjunctival inflammation) in the cat. FHV has also been incriminated in the development of corneal sequestration, eosinophilic keratitis, bullous keratopathy, and dry eye in cats. These ocular conditions may occur even in cats that have been vaccinated for the virus.

Clinical Signs

Signs are highly variable and range from mild conjunctivitis to life-threatening illness. In severe cases, signs of upper respiratory infection, fever, loss of appetite, lethargy, conjunctival swelling, corneal ulceration and rupture, and copious ocular and nasal discharge may all occur. Secondary bacterial infections are also common in these cases. Signs are usually the most severe in kittens and unvaccinated cats. Kittens with severe ocular inflammation may develop symblepharon, in which the eyelids and conjunctiva adhere to each other or to the cornea.

With chronic FHV infection, mild, persistent conjunctivitis; linear or nonhealing corneal ulcers; corneal inflammation; and dry eye may occur. (See also the handouts on **Feline Corneal Sequestration**, **Keratoconjunctivitis Sicca [Dry Eye]**, and **Feline Eosinophilic Keratitis**.) Symptoms may persist for a prolonged time or recur sporadically over the life the cat.

Diagnostic Tests

In severe cases and in cases with upper respiratory signs, the signs often allow a presumptive diagnosis to be made. Signs are less specific in chronic cases, although FHV is suspected to play a role in many cases of chronic conjunctivitis of cats. Scrapings may be taken from the conjunctiva to assess the type of cells present and to look for evidence of the virus and other agents. Specialized tests for FHV are available that utilize samples from the eye, nose, windpipe, or blood. If a secondary bacterial infection is suspected, bacterial cultures may be performed.

TREATMENT AND FOLLOW-UP

Treatment Options

Treatment is directed at active FHV infection; there is no effective treatment for latent infection. It is difficult to cure FHV, but the infection may go into remission. Antiviral therapy involves the following:

- Topical antiviral medications, such as idoxuridine, trifluridine, or cidofovir, can be tried. These medications are expensive and are often obtained from compounding pharmacies. They require frequent application and can be irritating.
- Oral antiviral medications, such as famciclovir, may also be used.
- Oral lysine is an inexpensive supplement that can be used long term to try and keep the virus in remission.
- Oral or topical interferon- α may be tried in some cats.

Additional supportive measures may also be helpful:

- Concurrent bacterial (especially chlamydial) infections may require treatment with topical and systemic antibiotics.
- Protective lubricants and topical pain medications are useful in cases of conjunctival swelling and corneal ulceration.
- Application of moist, warm compresses helps keep the eyes clean and free of discharge.
- The development of a corneal bulla or bubble or rupture of corneal ulcers may require surgery to repair the lesions or to remove the eye.

FHV infection may be part of an upper respiratory complex in cats (See the handout on **Feline Upper Respiratory Infection**.)

Follow-up Care

Recheck visits are often needed to monitor response to treatment and the healing of corneal ulcers. Medications may be changed or adjusted if signs do not improve. Fluorescein staining of the cornea and tear tests may be performed repeatedly.

Prognosis

Early and adequate vaccination of cats helps prevent FHV, especially the most severe infections. Severe infections do not often recur if the cat has a good immune system, but low-grade signs of FHV may recur sporadically throughout the cat's life. FHV is most likely to reactivate during times of stress, when other illnesses occur, or with prolonged use of anti-inflammatory or immunosuppressive medications (such as steroids). Chronic ocular inflammation can be difficult to treat, and prolonged, diligent therapy is often needed.