

## FELINE HERPESVIRUS – An Update on Diagnosis and Treatment

David J. Maggs, BVSc, DACVO  
Associate Professor - Ophthalmology  
University of California Davis

Feline ocular and upper respiratory disease is very common and often extremely frustrating to diagnose and treat, especially in multicat situations. The majority of cases are due to infection with one of two common organisms – feline herpesvirus type 1 (FHV-1) or *Chlamydomphila felis* (previously called *Chlamydia psittaci*). Although we know that cats become infected with feline herpesvirus (FHV-1) for life, we are getting better at treating those that have chronic or recurrent disease episodes as a result of this infection. Today's talk will emphasize the very latest information on new topical and systemic drugs for treating cats with FHV-1.

### CLINICALLY RELEVANT (FHV-1) VIROLOGY

There are a few items of basic virological knowledge that are essential if we are to make rational suggestions to clients regarding their feline herpesvirus type 1 (FHV-1)-infected cats:

- FHV-1 infection is common (> 90% of cats have antibodies to this virus)
- FHV-1 is very unstable outside the cat
- Primary infection occurs following close contact between cats and kittens
- Most cats recover from primary infection and “live happily ever after” as *lifelong* carriers
- A minority of cats suffer recurrent episodes of herpetic disease in the nose, eye, or skin.

### DIAGNOSIS

Because the majority of cats are *infected* with FHV-1 but a small minority suffers recurrent disease due to this infection, the diagnosis of FHV-1 in individual cats represents one of the greatest challenges in the management of chronic FHV-1-related diseases. I tend to assume cats have either *Chlamydomphila* or FHV-1 and rely on clinical signs to help me differentiate the two.

### CLINICAL SIGNS

Classic signs of FHV-1 infection include dendritic or geographic corneal ulcers, conjunctivitis, corneal sequestrum, eosinophilic keratitis, symblepharon, and corneal opacification/scarring.

### THERAPY

I like to consider therapies for all syndromes produced by FHV-1 under three general categories: supportive therapy, antiviral therapy, and adjunctive therapy. Major goals of **supportive therapy** should be prevention of secondary bacterial infection, and maintenance of adequate nutrition, hydration, and patient comfort. A warm, relatively humid, and well-ventilated environment is essential. The eyes and nostrils should be kept clear of discharge both for patient comfort and to allow better penetration and efficacy of topical medications. Nebulization, steam inhalation, and adequate hydration will aid in the loosening and expectoration of secretions. Supplementation of the tear film with lubricant drops or ointments should be considered. Appetite may be stimulated by offering warmed, strongly flavored, and aromatic foods. Systemic and ophthalmic antibiotics should be considered to control secondary infection and to limit chronic sequelae. **Corticosteroids** have several negative side-effects in patients acutely infected with FHV-1 and should not be used. Although there are a lot of **antiviral drugs** available, none was developed for cat or for FHV-1, so not all are safe or effective. **Lysine** has been shown to reduce the replication of FHV-1 in the lab, to reduce the severity of conjunctivitis in cats with primary FHV-1 infection, and to reduce spontaneous viral shedding in cats latently infected with FHV-1. It also seems to be safe.