FELINE RESPIRATORY DISEASE COMPLEX



Feline respiratory disease complex is a set of respiratory illnesses caused by a group of organisms that can cause infection alone or together. It includes those illnesses with signs including inflammation of the nasal and sinus linings, inflammation of the eye lining (conjunctivitis), excessive tear production, salivation, and mouth sores. The principal diseases that make up about 90% of infections are **feline viral rhinotracheitis** (also called **feline herpesvirus type 1**) and **feline calicivirus**, although other diseases may also be involved such as *Chlamydophila*, *Mycoplasma*, *Bordetella*, and others.

Natural transmission of these agents occurs through small droplets in the air (such as from a sneeze) and contaminated objects (toys, bowls, handler) and are very contagious to other cats. Recovering cats may spread the virus for <u>many months</u>. <u>Stress</u> may trigger a relapse.

Clinical signs

Typical symptoms include <u>sneezing</u>, <u>nasal and/or eye discharge</u>, <u>cough</u>, <u>oral and/or nasal ulcers</u>, <u>fever</u>, <u>corneal ulcerations</u>, and any combination of these signs together. In most cases, a cold in a cat is just a nuisance and their immune systems typically take care of it with time and supportive care. However, in some cases, <u>an upper respiratory infection could be more serious</u>, <u>including when they lose their appetite</u>, <u>have congestion with open mouth breathing or a very high fever</u>.

Course of Infection

Most feline colds run a course of 7 to 10 days regardless of treatment, but it is important to realize that these infections are permanent and that herpes-infections are recurring (a property of all types of herpes infections). In kittens, herpes infections are notorious for dragging out. Stresses such as surgery (usually neutering/spaying), boarding, or introduction of a new feline companion commonly induce a fresh herpes upper respiratory episode about a week following the stressful event and the active virus sheds for another couple of weeks.

These <u>episodes may recur for the life of the cat</u>, although as the cat matures, symptoms become less and less severe and ultimately may not be noticeable to the owner. Cats infected with calicivirus may shed virus continuously, not just in times of stress, and may do so for life, although about 50% of infected cats seem to stop shedding virus at some point.

Diagnosis

Typically, diagnosis is <u>based on history</u>, <u>presentation and clinical signs</u>. Since upper respiratory infections present similarly, it can be very difficult to differentiate what type of infection is at play in most cases and sometimes it can be multiple organisms. Additionally, the herpes virus is shed intermittently so it may not be picked up on isolation testing and cats without symptoms can be positive for presence of the virus, making diagnosis all the more difficult. There are several <u>PCR virus panels</u> available that typically include taking swabbed samples from the back of the throat and the conjunctiva of the eye. If the eyes are involved, <u>corneal staining</u> will be performed to look for ulcerations on the corneal surface, which is a common occurrence with herpes virus.

Treatment

Treatment depends largely on how severe the clinical signs are (i.e. mild sneezing versus heavily congested affecting appetite and energy level). Additionally, treatment may be affected by the possibility of a secondary bacterial component complicating the disease course, leading to antibiotics being prescribed. Oral medications (antibiotics and/or antivirals) +/- eye ointments are typically prescribed. Special therapies include inhaled therapies (nebulization, nose drops, oxygen therapy, etc.), fluids, appetite stimulants, lysine supplementation, sinus flushes, etc. Every upper respiratory cat can present differently, potentially requiring different therapies.

Prevention

Vaccinations available include protection against distemper, herpesvirus, calicivirus, +/- *Chlamydophila felis* (where typically this component of the vaccine is used in shelter type settings). Vaccines are unlikely to be completely preventative for the upper respiratory viruses and are instead meant to minimize the severity of the symptoms.

Prognosis

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There is <u>no cure</u>. The therapeutic goal is to <u>reduce the frequency and severity of recurrences</u>. Most cats respond well to medical management and lead relatively normal lives. Minimizing the chance of infection, feeding a premium diet, supplementing the diet with I-lysine daily, reducing stressful situations and proper vaccination against preventable causes are your cat's best defense.





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