CHRONIC UPPER RESPIRATORY DISEASE IN CATS
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Introduction
The chronic feline sniffer is a frustrating patient to treat. The longer the course, the more severe the consequences to affected tissues are and the more debilitating the condition is to the patient. A logical diagnostic plan to differentiate probable etiologies and to rule out nonviral causes results in appropriate therapeutic choices. Even with a viral etiology, therapies to reduce the pathological consequences of the infection may modulate and help control the clinical signs. Novel choices and drug combinations are discussed.

Therapeutics: Specific
Practitioners frequently choose antibiotics to treat cats with upper respiratory disease. But do we know what organism is involved? If multiple organisms are grown on culture, the significance of the growth is questionable. Should a single bacterial species grow on culture that is NOT a normal commensal, sensitivity results may be used. Therapy should be continued for 6–8 weeks without changing the antibiotic if there is an initial positive response to the antibiotic, so the antibiotic should be safe for long-term use. Antibiotics should be chosen that reach the site of infection at effective therapeutic concentrations. Antibiotics that penetrate cartilage and bone are of value, making amoxicillin-clavulanic acid, clindamycin, and chloramphenicol reasonable choices. Clindamycin, doxycycline, and chloramphenicol are effective against Mycoplasma spp.; metronidazole and doxycycline modulate the immune response thereby, reducing inflammation somewhat. Doxycycline is effective against Chlamydomyphyla and L-forms. Azithromycin (5–10 mg/kg PO q24h for 5 days, then q72h long term) is popular because of its long duration of action. Pulse or intermittent therapy (e.g., 1 week/month) predisposes to the development of antibiotic resistance and cannot be recommended. Administration of antibiotic ophthalmic drops may be included because they can be used as direct topical therapy to the nasal passage.

Should Cryptococcus sp. or Aspergillus sp. be cultured, specific antifungal protocols should be followed (discussed elsewhere). If an allergic component is suspected because of seasonal recurrence, antihistamines may be considered. Chlorpheniramine maleate 1–2 mg/cat PO q12h may be used. Less sedative antihistamines (e.g., Allegra™, Claritin™) selectively inhibit peripheral H1 receptors.

For FHV-1 infection, administration of the intranasal herpes and calicivirus vaccine 2 to 3 times a year may be beneficial in stimulating local immunity. L-lysine helps to reduce the frequency of herpesviral recrudescence by competing with arginine needed for viral replication. The dose is 250 (kittens)–500 (adults) mg PO q12h long term. Interferon alpha at 30 units PO q24h may also help modulate FHV-1 infection. Similarly, ophthalmic administration of alpha interferon in saline has been recommended for cats with herpes virus keratitis or conjunctivitis. Acyclovir is an anti-herpes drug used in humans. Because of potential toxicity in cats, it should only be used in cats with confirmed herpes infection and should be started at a low dose (10–25 mg/kg PO q12h), monitoring the CBC every 2–3 weeks.

Polyps and foreign bodies should be removed. A novel approach to the removal of a polyp originating in a frontal sinus was recently reported [10]. Because of the small size of the patient, an endoscope was passed orad through the cardia of the stomach, into the esophagus and oropharynx, allowing retrieval of several polypoid masses. Nasopharyngeal stenosis/“webbing” requires surgical resection via a transpalatine approach. Like polyps, webs may reoccur. Dental disease should be treated, repairing fistulae if present.

Surgical drainage and flushing may be warranted for some patients with chronic sinusitis. After openings are drilled into the frontal sinus, histopathologic samples and bacterial samples may be collected. Trypsin-containing solutions may help break up heavy mucus. Sinus ablation has also been described, in which the frontal sinus is opened by bone flap, the mucoperiosteal lining is removed, necrotic nasal turbinates are removed, the opening between the sinus and nasal passages is obliterated with a piece of temporal muscle fascia, and the frontal sinus is packed with a piece of ventral abdominal fat. This technique has shown success, and fat is preferable to the use of polymethylmethacrylate.

Therapeutics: Nonspecific
Maintaining hydration is essential for tissue perfusion, but also to make secretions less viscous and to improve cell function (i.e., their ability to clear mucus via the muco-ciliary apparatus). Thus, humidifying the air around patients...
with chronic airway narrowing is beneficial, be it by steaming the bathroom or instilling saline into the nostrils to stimulate sneezing and clearance of the nasal passages. Oral decongestants include diphenhydramine HCl 2–4 mg/kg PO q8h, dimenhydrinate 4 mg/cat PO q8h, or pseudoephedrine 1 mg/kg PO q8h. Nasal decongestant drops are challenging to administer, but can be very helpful (pediatric Otrivin™ = 0.05% xylometazoline 1 drop into each nostril SID for 3 days only to avoid rebound congestion).

Anti-inflammatories play a role. By reducing airway swelling, breathing improves and less secretion is produced, making the patient more comfortable. Glucocorticoids may help by retarding leukocyte function and migration, blocking phospholipase A, decreasing release of lytic enzymes, and suppressing delayed hypersensitivity reactions. This makes them candidates for use in lymphoplasmacytic rhinitis, the most common form of chronic rhinitis. Because the condition itself is not life-threatening, glucocorticoids should be used intermittently rather than continuously long term. The author uses prednisolone daily for a week and reduces to q48h over the next week. The concern with the use of glucocorticoids is the possibility that they might result in recrudescence of the virus or virus shedding. Non-steroidal anti-inflammatories are alternate options. Piroxicam (0.3 mg/kg PO q48h) may help. Leukotriene blockers may also be considered to reduce inflammatory cell infiltration: Singular™: 0.25 mg–0.5 mg/kg q24h (= 1/8 of a 10 mg tab); Accolate™: 0.5 mg–1 mg/kg q12–24h.

It is critical to pay attention to nutrition in quality, balance, and quantity. In addition to the frequently used antihistamine, anti-serotonin drug cyproheptadine (1 mg PO q12h), mirtazapine at 3–4 mg/cat PO q72h is a newly recognized appetite stimulant for cats.

Acupuncture may be a useful adjunctive therapy.

**Prognosis**

It is important that clients understand that a cat with chronic rhinitis/rhinosinusitis will never be cured. With ongoing management, the patient’s quality of life can be improved, with a reduction in sneezing and nasal discharge.

*References available upon request.*