

Conjunctivitis in Cats

(Inflammation of the Moist Tissues of the Eye)

Basics

OVERVIEW

- Inflammation of the moist tissues of the eye (known as the “conjunctiva”); the conjunctiva is the blood vessel-rich moist tissue (mucous membrane) that covers the front part of the eyeball or globe, up to the edge of the cornea (known as the “bulbar conjunctiva”) and lines the lids and third eyelid (known as the “palpebral conjunctiva”)

SIGNALMENT/DESCRIPTION OF PET

Species

- Cats

Breed Predispositions

- Infectious inflammation of the moist tissues of the eye (conjunctivitis)—purebred cats may be predisposed

Mean Age and Range

- Infections—most commonly affect young cats

SIGNS/OBSERVED CHANGES IN THE PET

- Squinting or spasmodic blinking (known as “blepharospasm”)
- Redness of the moist tissues of the eye (known as “conjunctival hyperemia”)
- Discharge from the eye(s); may be clear or may contain mucus and/or pus
- Fluid buildup (known as “edema”) of the moist tissue covering of the eyeball (bulbar conjunctiva), around the cornea (condition known as “chemosis”)
- Upper respiratory infection—possible

CAUSES

Viral Causes

- Feline herpesvirus (FHV)—most common infectious cause; only one that leads to corneal changes (such as corneal ulcers)
- Calicivirus—may cause ulcers of the conjunctiva

Bacterial Causes

- *Chlamydomphila felis*—chemosis is a common sign
- *Mycoplasma* infections—may be overgrowth of normally present organisms



- In newborns, seen before the eyelids separate, accumulation of material under the closed eyelids; due to bacteria or viruses

Immune-Mediated Causes

- Eosinophilic inflammation; “eosinophils” are a type of white blood cell; they are involved in allergic responses by the body
- Chronic inflammation (known as “lipogranulomatous”)
- Allergic eye disease
- Related to generalized (systemic) immune-mediated diseases—in which the body attacks its own tissues

Trauma or Environmental Causes

- Foreign material
- Dust, smoke, chemicals
- Certain medications

Secondary to Disease of the Tissues Surrounding the Eye (Known as “Adnexa,” Such as Eyelids, Third Eyelid, and Tear Glands)

- Lack of normal tear film (known as “aqueous tear film deficiency”); May develop “dry eye” (keratoconjunctivitis sicca) as a result of scarring
- Lid diseases (such as eyelid curls inward, misplaced eyelashes, allowing facial hair to rub the eye)—may lead to clinical signs of inflammation of the moist tissues of the eye (conjunctivitis)
- Secondary to blockage of the outflow portion of the drainage system that normally moves tears to the nasal passages (known as the “nasolacrimal system”), such as a blocked nasolacrimal duct

Secondary to Trauma or Environmental Causes

- Foreign body located in the moist tissues of the eye (conjunctiva)
- Irritation from dust, chemicals, or eye medications

Secondary to Other Eye Diseases

- Disorders of the cornea (the clear outer layer of the front of the eye) including ulcers, with or without inflammation (condition known as “ulcerative keratitis”)

RISK FACTORS

- Exposure to cats with active viral infections (such as feline herpesvirus), or with bacterial infections (such as *Chlamydophila*)
- Stress; immune system compromise (for example, being a carrier of herpesvirus)

Treatment

HEALTH CARE

- Primary—often outpatient
- Secondary to other diseases (such as inflammation of the front part of the eye, including the iris [anterior uveitis] and corneal ulceration [ulcerative keratitis]) or glaucoma—may need hospitalization while the underlying problem is diagnosed and treated
- If due to exposure to eye irritant, flush eye—or if foreign material, remove it

ACTIVITY

- Primary—no restriction for most affected pets
- Suspected contact irritant or sudden (acute) allergic disease—prevent (if possible) contact with the agent causing the irritation or allergy
- Suspected feline herpesvirus—minimizing stress is recommended
- Do not expose pets to other cats to decrease risk of spread of infectious causes of inflammation of the moist tissues of the eye (conjunctivitis)

DIET

- Suspected underlying skin disease and/or food allergy—food elimination diet recommended; an “elimination diet” is a diet that does not contain substances that the pet normally eats (novel)

SURGERY

- Eyelid or eyelash disorders may require correction
- Blockage of the outflow portion of the drainage system that normally moves tears to the nasal passages (known as the “nasolacrimal system”)—surgical repair is difficult; treatment often not recommended
- Cancer involving the moist tissues of the eye (“conjunctival cancer”)—may involve surgical removal of the tumor followed by radiation therapy; freezing (known as “cryotherapy”); may involve surgical removal of the eyeball and associated tissues (known as “enucleation”), depending on the type of tumor and the extent of involvement
- Scar tissue between the eyelid and the eyeball (known as “symblepharon”)—common complication of newborn conjunctivitis; may require surgical removal of the scar tissue, once infection is controlled
- Condition in which part of the cornea tissue dies, leaving a pigmented lesion and fluid buildup (known as “corneal sequestration”)—surgical removal of affected parts of the surface of the cornea (known as “keratectomy”) may be required

Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

FELINE HERPESVIRUS

- Condition usually mild and may resolve on its own
- Antiviral treatment—indicated for certain situations [such as corneal ulcers caused by herpesvirus and conjunctivitis that does not respond to symptomatic treatment, or prior to surgery for sequestrum (damaged islands of cornea)]; treatment may be directed at controlling secondary bacterial infection only
- Antiviral medications include cidofovir, idoxuridine, vidarabine; trifluridine
- Lysine orally
- Famciclovir administered by mouth has been shown to be safe and effective for use in cats

CHLAMYDOPHILA OR MYCOPLASMA

- Antibiotics may be applied directly to the moist tissues of the eye (“topical treatment”) or may be given by mouth (“systemic treatment”)
- Tetracycline eye ointment (Terramycin®), Erythromycin, Chloramphenicol—(topical treatment); continue for several days past resolution of all clinical signs; recurrence or reinfection common; use of tetracycline administered by mouth (systemic treatment) may be used for difficult cases
- Topical ciprofloxacin eye solution
- Doxycycline, an antibiotic, may be given by mouth (systemic treatment)

OTHER BACTERIAL INFECTIONS

- Antibiotics based on bacterial culture and sensitivity results

NEWBORN CONJUNCTIVITIS

- The veterinarian will open the lid margins carefully, establish drainage of discharge, and treat with a topical antibiotic and an antiviral for suspected feline herpesvirus

EOSINOPHILIC CONJUNCTIVITIS

- Steroids applied directly to the moist tissues of the eye (“topical treatment”)—usual treatment; 0.1% dexamethasone
- Oral megestrol acetate—rarely used, may help condition that does not respond to steroids; discuss possible side effects with your pet's veterinarian
- Other steroids—1% prednisolone acetate; betamethasone; hydrocortisone
- Cyclosporine solution applied directly to the eye (topical treatment)

Follow-Up Care

PATIENT MONITORING

- Recheck shortly after beginning treatment (at 5–7 days); then recheck as needed

PREVENTIONS AND AVOIDANCE

- Treat any underlying disease that may make the eye disease worse
- Prevent reexposure to source of infection
- Minimize stress for pets with conjunctivitis caused by feline herpesvirus (known as “herpetic conjunctivitis”)
- Isolate pets with infectious conjunctivitis to prevent spread of disease
- Vaccination against viral causes (feline herpesvirus, calicivirus)—recommended; infection is still possible if the cat was exposed to an infectious agent before being vaccinated (for example, herpes infection from an infected mother cat [queen])

POSSIBLE COMPLICATIONS

- Corneal sequestration (condition in which part of the cornea tissue dies, leaving a pigmented lesion)
- Scar tissue between the eyelid and the eyeball (symblepharon)—common complication of newborn conjunctivitis
- “Dry eye” (KCS), usually with chronic herpes virus infection

EXPECTED COURSE AND PROGNOSIS

- Feline herpesvirus infection—most affected cats become long-term (chronic) carriers of the virus; episodes less common as the pet matures; may see repeated flare-ups; tend to note more severe clinical signs at times of stress or decreased ability to produce immune response (known as being “immunocompromised”)
- Bacterial infection/inflammation—usually resolves with appropriate administration of antibiotics
- If an underlying disease is found (such as “dry eye” [KCS]), resolution may depend on appropriate treatment and resolution of the disease
- Immune-mediated diseases (such as eosinophilic conjunctivitis)—diseases tend to be controlled, not cured; may require long-term (chronic) treatment at the lowest dose possible

Key Points

- If a large amount of discharge is noted, gently clean the eyes before administering treatment
- If both eye solutions and eye ointments are prescribed, apply the solution(s) before applying the ointment(s)
- If several eye solutions are prescribed, wait at least 5 minutes between treatments
- Call for instructions if the condition worsens, which indicates that the condition may not be responsive to treatment or may be progressing or that the pet may be having an adverse reaction to a prescribed medication