

# Conjunctivitis

Rhea V. Morgan, DVM, DACVIM (Small Animal), DACVO

## BASIC INFORMATION

### Description

Conjunctivitis is inflammation of the tissues lining or covering the eyelids and eyeball.

### Causes

Numerous factors can lead to conjunctivitis, including infection by bacteria or viruses (especially herpesvirus in cats), irritants, and trauma. Irritants can include chemicals, smoke, dust, soap, foreign bodies, abnormal hair, and many others. Young dogs (less than 1 year of age) may develop follicular conjunctivitis, which appears to be an excessive immune response to environmental irritants.

Certain forms of conjunctivitis may develop with allergies or accompany immune disorders. Conjunctivitis often occurs in eyes with dry eye (keratoconjunctivitis sicca). It can occur in association with many systemic or generalized illnesses, such as upper respiratory tract infections and generalized viral or bacterial infections. Rarely, parasites, fungal infections, and tumors of ocular tissues can cause conjunctivitis.

### Clinical Signs

Redness of the conjunctiva is a common sign. Ocular discharge often develops and may be watery, mucoid (gelatinous, gray), or pus-like (thick, yellow-green). Swelling of the conjunctiva may occur in some cases. Follicular conjunctivitis in dogs receives its name from the small white swellings (follicles) that develop on the third eyelid and conjunctiva. Some forms of conjunctival inflammation (such as eosinophilic conjunctivitis in cats) can cause small pink growths to develop on the conjunctiva. With widespread or severe conjunctivitis, inflammation of the eyelids (*blepharitis*) or of the cornea (*keratitis*) may also occur.

Most eyes with mild conjunctivitis are not painful. Eyes with conjunctivitis associated with trauma, chemical burns, corneal ulceration, or foreign bodies may be painful (indicated by squinting, pawing, and so on).

### Diagnostic Tests

Conjunctivitis must be differentiated from other causes of a red eye, including glaucoma, corneal ulceration, scleritis (inflammation of the deeper white tissue covering the eyeball), and uveitis (inflammation inside the eye). Other conditions, such as skin diseases and tumors of the eyelids that can affect the conjunctiva secondarily, may also be involved. A thorough eye examination with a tear test, fluorescein staining for a corneal ulcer, and glaucoma testing (intraocular pressure measurement) is often performed to rule out some of these other conditions.

To identify potential causes, further testing may include a conjunctival scraping and examination of the cells under the

microscope (cytology), submission of a bacterial culture, or special assays for viruses. Biopsies are sometimes done in severe, unusual, or unresponsive cases.

## TREATMENT AND FOLLOW-UP

### Treatment Options

Specific treatment is directed at the underlying cause.

- For example, if irritants are thought to be the cause, then removal of the source of irritation is important. Local foreign bodies or exposure to chemicals is usually treated with flushing of the eye.
- Antibiotics are given for bacterial infections, and antiviral medications may be given for viral infections. These medications may be administered topically and orally (systemically).
- Conjunctivitis associated with dry eye often improves with therapy for that condition.
- Topical antihistamines and steroids are often used when conjunctivitis occurs in association with allergies or is thought to be an immune disease.
- The rare parasitic infestations are treated by removal of the parasite and anti-inflammatory medications.

Symptomatic treatment for conjunctivitis of unknown or uncertain origin may involve the administration of a topical antibiotic or steroid preparation, installation of soothing lubricant agents, and possibly the use of other anti-inflammatory drugs.

### Follow-up Care

Some forms of conjunctivitis respond very quickly, whereas others are stubborn and require prolonged therapy. Recheck visits are frequently needed to evaluate the eye's response to treatment and to decide whether further diagnostic tests or other therapies are needed. Recheck visits also allow other associated problems (such as corneal ulceration or blepharitis) to be assessed.

Any eye with conjunctivitis that becomes painful (squinting, pawing at the eye) warrants re-examination as soon as possible; in the meantime, all steroid medications being administered are stopped.

### Prognosis

Many forms of conjunctivitis, including those caused by one-time exposure to irritants, trauma, or corneal ulcers, resolve completely. Other forms of conjunctivitis can recur intermittently or become chronic. Examples of these include herpesvirus or eosinophilic conjunctivitis in cats and conjunctivitis associated with dry eye or allergic skin disease.