



Alexandra van der Woerd  
DVM, MS, ACVO, ECVO

The Animal Medical Center  
USA

Sandra.vanderwoerd@  
amcnyc.org

## DIAGNOSIS AND TREATMENT OF EYELID DISORDERS

Eyelids are important for protection and lubrication of the eye. A normal eyelid position and function is needed and disorders interfering with normal position or function will result in disease of the globe. The following abstract is an overview of some of the most common eyelid disorders encountered in practice.

### **Distichiae, ectopic ciliae, trichiasis**

Distichiae are hairs that emerge from the Meibomian gland openings in the eyelids. They are common in certain breeds of dogs such as Cocker Spaniels and Golden Retrievers. If the distichiae are fine and low in number, treatment may not be needed. The presence of numerous and/or stiff distichiae may result in chronic irritation of the conjunctiva and cornea and predispose to the formation of corneal ulcers. Epilation of the distichiae can aid in determining whether the distichiae are clinically significant or not. Treatment options include electroepilation of the offending hairs or cryoepilation. Electroepilation is performed under the surgical microscope and each hair is treated individually. Cryoepilation is most commonly performed using a double freeze thaw method with nitrous oxide. Temporary or permanent depigmentation is a possible side-effect of cryoepilation. Recurrences are possible with both methods.

Ectopic ciliae are hairs that penetrate the conjunctival surface of the upper eyelid. They are most commonly located in the upper eyelid at the twelve o'clock position. They are usually seen in young dogs and significant blepharospasm can be present. They can cause ulceration of the cornea and surgical removal is indicated. Diagnosis of ectopic ciliae can be challenging as the conjunctiva often swells around the hairs and may hide the hairs during examination.

Trichiasis is a condition in which normal hairs irritate the eye because of the position of the skin. Corneal irritation by nose folds in brachycephalic dogs and entropion are examples of trichiasis.

### **Preparation of the patient for ophthalmic surgery:**

The hairs are clipped with a small clipper and removed from the area. The area is cleaned using 1:20 diluted baby shampoo. After that, a 1:50 diluted betadine solution (not the betadine scrub) is used on the area. Positioning of the patient head is very important. A head positioner such as a "hug-u-vac" allows you to position the head the way you want and immobilize it for the duration of the procedure. The eye can be draped using regular drapes and towel clamps or a Steri-Drape can be used.

### **Eyelid tumors**

Eyelid tumors are common in older dogs, they are fairly rare in cats. The vast majority of eyelid tumors in dogs are benign, most of them are malignant in cats. A biopsy or aspirate is indicated in eyelid tumors in cats. This is usually not needed in dogs. The eyelid margin needs to be spared as much as possible in dogs. Because the vast majority of eyelid tumors in dogs are benign, only the tumor should be removed. It is not necessary to take "margins" associated with the eyelid tumor.

A chalazion clamp helps to stabilize the tissues and provide hemostasis during the procedure. Most eyelid tumors can be removed by simple excision. Careful apposition of the eyelid margins after the tumor has been removed is important. Closure of the subconjunctival tissues is only needed if a large tumor has been removed, creating a large wound. Care should be taken to bury the suture knots away from the cornea. A figure 8 suture pattern opposes the eyelid margins nicely. The remainder of the incision can be closed with simple interrupted sutures.

A variety of suture material can be used to close the eyelid margin and skin. They can be absorbable (such as vicryl or PDS), or non-absorbable such as nylon or silk. Suture used should be 4-0, 5-0 or 6-0 size. Silk has the benefit of being relatively non-irritating if the suture material touches the cornea.

Eyelids have a tremendous blood supply, which is one of the reasons that healing is usually rapid. This also though results in bleeding during surgery. A fine tip disposable cautery can be very helpful during eyelid tumor removal surgery.

### **Entropion**

Entropion in dogs is usually hereditary in nature and usually affects young dogs. It usually either involves the lower lateral eyelid (such as in Labrador Retrievers), or all 4 eyelids (such as in the Chinese Shar Pei or Chow Chow). It is important to evaluate the position of the eyelids after topical anesthetic has been applied to the eye(s) and some time has been given to the animal to relax. Otherwise, a spastic component of the entropion makes the entropion appear much worse than it actually is. Entropion of the lower lateral eyelid can be corrected with a simple Hotz-Celsus procedure. Suture material is the same as for eyelid tumor removal. Entropion of all 4 eyelids is best corrected with a combination of procedures. I usually perform a Hotz-Celsus on the lower eyelid, and a forced granulation procedure according to Dr Stades ("Stades procedure") on the upper eyelid. The advantage of this procedure is that it creates a very tough eyelid margin, which makes recurrence of the entropion much less likely. Entropion in cats is usually in older cats and most of them can be successfully corrected with a Hotz-Celsus procedure.

### **Prolapsed gland of the third eyelid**

Prolapse of the gland of the third eyelid occurs in many breeds. It typically occurs in young dogs, and may be unilateral or bilateral. It is rare in older dogs and neoplasia should be suspected if a gland enlarges in an older animal. Removal of the gland or leaving the gland out of its normal position is associated with an increased risk of KCS later in life. Surgical reduction of the gland to its normal position is recommended. Many procedures exist to reduce a prolapsed gland. I strongly prefer a modified pocket technique to reduce the gland. Complications, other than recurrence, are extremely rare with this procedure.