

Distichiasis

Caryn Plummer, DVM, DACVO
University of Florida



▲ Multiple distichiae of the upper and lower eyelid of a dog.

Distichiasis is the abnormal presence of cilia (eg, eyelashes) in the meibomian glands.¹

Distichia hair follicles are found in the base of the meibomian gland, where the cilia exit through its orifice; the cilia may contact the cornea and cause irritation. The majority of dogs with distichia do not require any treatment; however, in cases associated with discomfort, therapeutic intervention should be pursued. If the hairs emerge from the conjunctival surface as ectopic cilia, therapeutic removal is usually necessary. Distichiasis is thought to be inherited, but the mechanism of transmission is unknown.²

Any individual patient may present with distichiasis; however, certain breeds are more prone to the condition: American and English cocker spaniels, Welsh springer spaniels, Cavalier King Charles spaniels, flat-coated retrievers, English bulldogs, shih-tzus, poodles, dachshunds, and Parson Russell terriers.

Clinical Signs

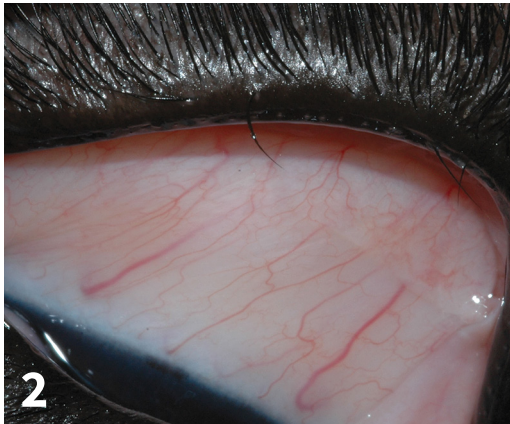
Many cases are noted incidentally when an ophthalmic examination is conducted. Others are diagnosed when the patient presents with mild-to-moderate ocular discomfort (eg, persistent or intermittent squinting, increased blinking frequency) and epiphora with or without tear staining on the face.

Diagnosis

Distichia are usually noted when a thorough examination of the eyelid margins and ocular surface is performed. Some hairs are large or numerous enough to be noticed by the naked eye; others require magnification to be observed (*Figure 1*, above; *Figures 2 & 3*, next page).

Treatment

If hairs are soft and nonirritating, benign neglect is preferred; treatment, if not performed with care, may result in irreversible damage to eyelid margins and meibomian glands, which could result in permanent eyelid deformity or qualitative tear film deficiency.



▲ A single or few solitary distichia are more commonly encountered than a great number.



▲ Multiple upper eyelid distichia in a dog. Note how stubby and stiff a few appear.

The most common and, in general, least risky option is cryoablation of the hair-producing follicle.



▲ Cryotherapy for distichia is applied 3 to 4 mm behind the eyelid margin over the base of the affected meibomian gland on the palpebral conjunctival surface. A double freeze-thaw to -25°C destroys follicles but spares adjacent tissue. It is strongly recommended that a chalazion clamp be used when performing cryoepilation, as it facilitates exposure and assists with cryodestruction of the follicle by reducing blood flow to the gland, thereby speeding the freeze and slowing the thaw.

If the cilia cause discomfort or exacerbate corneal erosions or ulcerations, surgical removal or destruction of the distichia hair follicle is warranted.



▲ Formation of an iceball advancing across the meibomian gland openings.

The simplest treatment for distichia is manual epilation at regular intervals (ie, 4–6 weeks) with smooth-tipped cilia forceps; however, patients with clinical signs as a result of the offending hairs are recommended to undergo surgery for a more permanent solution. To this end, a variety of surgical interventions are available. The most common and, in general, least risky option is cryoablation of the hair-producing follicle (*Figure 4*).³ Cryotherapy is usually performed with either a nitrous oxide or liquid nitrogen

probe applied to the palpebral conjunctiva over the affected meibomian glands until an iceball forms that advances across the meibomian gland openings (**Figure 5**). The tissue is permitted to thaw completely and treatment is repeated, followed by manual epilation of any visible distichia. The amount of time necessary to freeze the follicle varies with the cryogen used and thickness of the patient's eyelid.

Pretreatment with a systemic NSAID may minimize postoperative swelling and discomfort. Post-

operative treatment should include systemic NSAIDs and topical corticosteroids. Eyelid and conjunctival swelling after the procedure is common; occasionally, eyelid depigmentation may occur. Other surgical options include electroepilation and surgical excision.

Distichia are similar to other hairs or to cilia in that the hair follicle undergoes a cycle of growth and shedding. Although hairs may not be present in other glands at the time of treatment, they could appear later and require additional treatment. ■

References

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