

Ophthalmology Snapshot

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History

An eleven-year old, female poodle was presented to the Ophthalmology Clinic, Animal Teaching Hospital, Faculty of Veterinary Science, Chulalongkorn University with a chief complaint of left eye epiphora. Blepharospasm was sometimes

noticed.

Left eye had no menace response. Dazzle reflex was positive. Pupil was in mid range at resting stage. Pupillary light response was moderate. STT 1 was 16 mm wetness. This dog was later scheduled for cataract surgery.

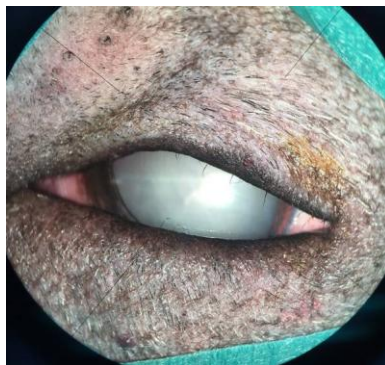
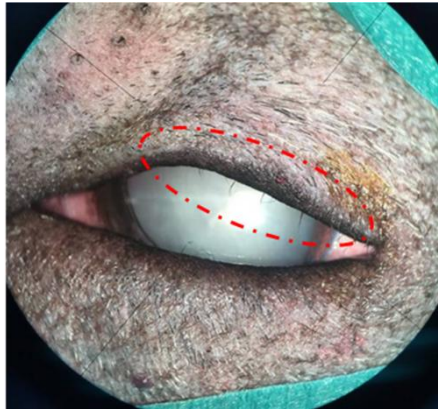
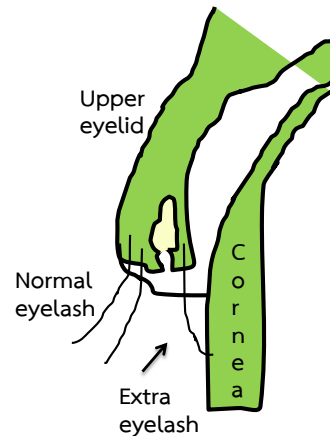


Figure 1 Photograph of the left eye of the dog.
(For better quality of photographs, please visit the TJVM website)

Question

What is the cause of epiphora?

Please turn to next page for the answer.

Answer**Distichia****Comments**

Distichiasis is a condition that additional eyelashes (adventitious cilia or distichia) emerge on the free lid margin of eyelid. When cilia are in contact with corneal surface, they precede to corneal irritation and clinical ophthalmic signs; such as excessive tear production, conjunctivitis, blepharospasm and squinting of the eye. If minimal, it may be clinically insignificant in some dogs. If pronounced, it can cause hyperemia of nictitating membrane, keratitis or corneal ulceration. Treatment of choice therefore depends on severity of clinical signs. Either palliative or curative surgery has not yet achieved satisfactory result since regrowing of eyelashes is still likely.

It was previously believed that distichia originated from tarsal gland because these lashes emerge from the openings of the tarsal glands on the lid margin. However, it was later scientifically reported that canine ectopic cilia arise from ectopic hair follicles. Light microscopic study of distichia revealed normal appearing tarsal gland. Hair bulb is alternatively found in the connective tissue surrounding tarsal gland. Hair

follicles pass between the sebaceous lobules of tarsal glands or inside the excretory duct of these glands.

Human congenital distichiasis is inherited as an autosomal-dominant trait with a high degree of penetrance. Eventhough distichiasis can be acquired to longterm chronic inflammation of the eyelid and conjunctiva, canine distichiasis is also a presumed inherited eye disease (PIED) since there is high incidence in some specific breeds. Breed predisposing are Cocker spaniel, Tibetan terrier, Springer spaniel, Bulldog, Pekingese, Shetland sheepdog, longhaired Dachshund, Poodle, Boxer, Sharpei, Bichon fries, Shih tzu, Labrador retriever, etc.

Reference

- Petersen T, Proschowsky HF, Hardon T, Rasch SN and Fredholm M, 2015. Prevalence and heritability of distichiasis in the English Cocker spaniel. *Canine Genetics and epidemiology*. 2(11): 1-6.
- Raymond-Letron I, Bourges-Abella N, Rousseau T, Douet JY, de Geyer G and Regnier A, 2012. Histopathologic features of canine distichiasis. *Vet Ophthalmol*. 15(2): 92-97.