

Ophthalmology Snapshot

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History

A 3 year-old male Pekingese was presented at the Ophthalmology Clinic, Small Animal Teaching Hospital, Faculty of Veterinary Science, Chulalongkorn University with a major complaint of chronic blepharospasm of the right eye. The dog had been receiving chloramphenicol eye ointment twice daily and atropine eye drop once a day for 15 days as it was suggested on the phone consultancy by the private veterinarian.

After observing the dog from a distance, the right eye had mild photophobia. Vision was positive to the test. Schirmer tear test I was 7 and 8 mm on the right and left eye, respectively. Mucous ocular discharge was observed from both eyes. Corneal surface was fairly lusterless. Focal illumination revealed pigmentation on the nasal aspect of both corneas. Negative fluorescein stainings were indicated.



Figure 1 Front view photograph of the Pekingese revealing noticeable ocular abnormalities.
(For better quality, figures can be viewed in the TJVM website)

Question

On the right eye, what are the corneal lesions and the causes of it?

Please turn to the next page for answers

Answers

Corneal lesion of the right eye: Corneal stromal defect
Cause of the lesion: Nasal fold trichiasis



Figure 2 Close-up photograph of the front view (2A) and the lateral view (2B) of the Pekingese's right eye.
(For better quality, figures can be viewed in the TJVM website)

2A: Excessive nasal fold obscured examiner's visualization of the nasal part of the cornea. Hairs on the fold were pointing directly into the ocular surface creating corneal pigmentation occupied one third of the entire cornea. Thickening of upper eyelid margin and mild conjunctivitis were observed above area of nasal fold. Circular corneal lesion of 3 millimeters in diameter was located at the paracenter. Corneal blood vessels were found above the lesion; the upper half of the lesion was covered with vascularization.

2B: After being smoothened and pressed down during ophthalmic examinations, hairs on the nasal fold were no longer intact with cornea surface. Pupil was dilated probably from topical mydriatics. Mild conjunctival pigmentation was observed on the temporal region.

Comments

Pekingese is one of breeds with prominent eyeball. It has come to a fashion that the breed's standards have large eye, short muzzle and marked nasal skin folds with long hairs. Nasal fold trichiasis is therefore usually found in the standard Pekingese. Trichiasis is the presence of normal hairs that misdirect into the eye. Chronic irritation of hairs and dryness of the ocular surface causes blepharospasm, mucous ocular discharge and corneal lesions. In combination with nasal fold trichiasis, nasal entropion and oversized lid fissure may sometimes occur in brachycephalic breeds. To provide accurate diagnosis of nasal fold trichiasis, dogs should not be under heavy restraint to promote good eyelid to globe relationship during examination.

Fluorescein staining should routinely be performed when animals had ocular pain. Bowl-shaped depression on the cornea frequently occurs from constant irritation. If not treated, it may rapidly

progress to deeper corneal ulcer. In cases of minor corneal irritation, delay or improper treatment, an ulcer may have partially healed resulting in corneal concavity (or stromal defect) with negative fluorescein staining result.

References

- Petersen-Jones, S.M. 2002. The eyelids and nictitating membrane. In: BSAVA Manual of Small Animal Ophthalmology. 2nd ed. Petersen-Jones and Crispin (ed). Gloucester: British Small Animal Veterinary Association. 99.
- Stades, F.C., Wyman, M., Boevé, M.H., Neumann, W. and Spiess, B. 2007. Eyelids. In: Ophthalmology for the Veterinary Practitioner. 2nd ed. Hannover: Schlütersche Verlagsgesellschaft mbH & Co. 89-91.