

Ophthalmology Snapshot

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History

A 5 year-old male Pomeranian was presented at the Small Animal Teaching Hospital, Faculty of Veterinary Science, Chulalongkorn University with a complaint of blindness following a dog fight.

One year ago, the dog was attacked by a large dog and lost vision on the left eye. He was attacked again by the same dog last month and begun afterward bumping into subjects while walking. The owner was informed by the veterinarian from a private animal hospital that the right eye could no longer be treated to regain vision. The owner questioned if the reason of vision loss on the right eye could be explained.

Ophthalmic examinations

Menace response and dazzle reflex were bilaterally negative (Fig 1). Partial pupillary light response was observed on the nasal region of the right eye while it was negative on the other; pupil was fixed at 1 millimeter in diameter. The left eye appeared smaller than the other one. Left anterior chamber partially collapsed. Intraocular pressure of the right and left eye was 3 and 11 mmHg, respectively. No sign of ocular pain was observed during examination.

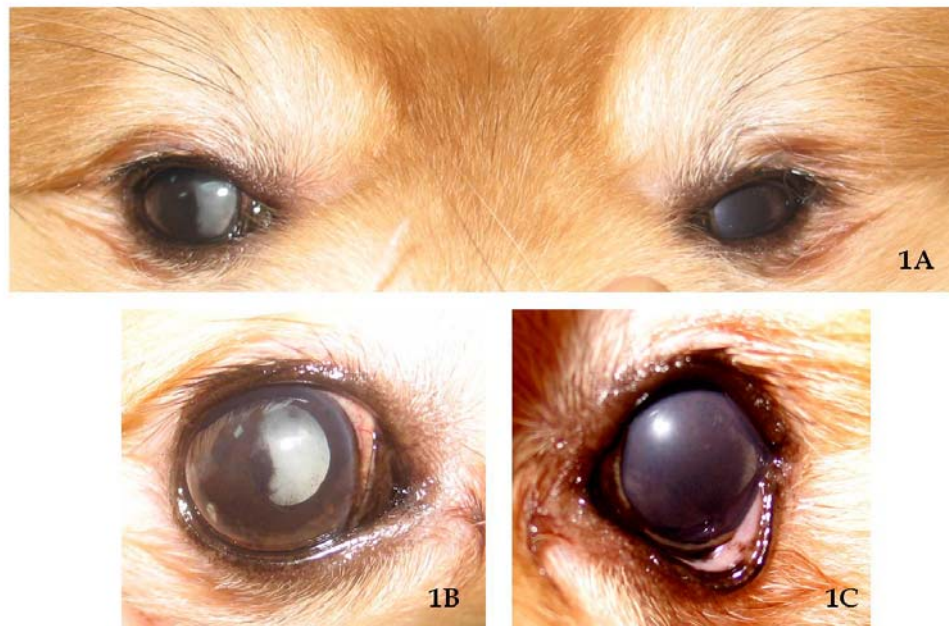


Figure 1 Ophthalmic appearance of the Pomeranian; front view (1A), close appearance of the right (1B) and left (1C) eye.
(For better quality, figures can be viewed in the TJVM website)

Question

Give major ophthalmic signs related to vision loss of the right eye.

Please turn to the next page for answers

Answers

1. Severe lens opacity
2. Posterior synechia
3. Anterior uveitis

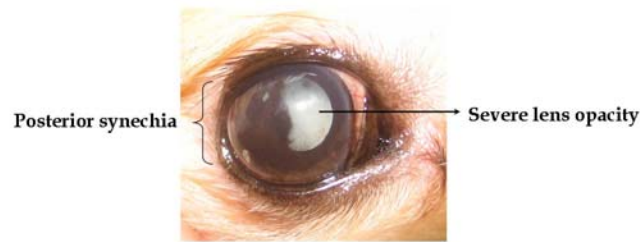


Figure 2 Close appearance of the right eye, after an attempt to dilate the pupil, illustrating densely opaque lens (late stage cataract) and a partial attachment of the iris to part of the lens at the temporal region. Note: pigments dispersing on the anterior lens capsule.

Comments

Adherence of the iris to the lens and pigment scattering on the anterior lens capsule are indicative of anterior uveitis (Fig 2). Anterior uveitis is an inflammation of the iris and the anterior part of ciliary body. Ophthalmic signs of anterior uveitis vary with stage of the disease, in which this case is chronic. According to time for which examination was performed, either uveitis was associated with traumatic rupture of the lens capsule or slow leakage of lens protein could not be confirmed. Intraocular hemorrhage may previously have occurred and rapidly resorbed by the time of examination, leaving intraocular fibrin as a cause of posterior synechia.

Even though blunt ocular trauma was a possible cause of uveitis inducing blindness in this case, it is important to differentiate other causes of

uveitis that might be involved; in order to reduce risk of other complications especially secondary glaucoma.

References

- Massa, K.L., Gilger, B.C., Miller, T.L. and Davidson, M.G., 2002. Causes of uveitis in dogs: 102 cases (1989-2000). *Vet Ophthalmol.* 5(2): 93-98.
- Crispin, C. 2002. The uveal tract. In: *BSAVA Manual of small animal ophthalmology*. S. Petersen-Jones and S. Crispin (eds) 2nd ed Gloucester: British Small Animal Veterinary association. 165-175.