

Ophthalmology Snapshot

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History

A 12 year-old, female Cocker spaniel was presented at the Ophthalmology Clinic, Animal Teaching Hospital, Chulalongkorn University with a chief complaint of persistent red eyes bilaterally. Lenses were opaque. Left eye had mild blepharospasm. Results from routine ophthalmic examinations were in Table 1.

Table 1 Basic ophthalmic examinations. Notes: STT; Schirmer tear test 1, IOP; Intraocular pressure

Examination	Right eye	Left eye
STT 1 (mm)	8	7
IOP (mmHg)	16	14
Menace response	+	+/-
Dazzle reflex	+	+
Pupillary light response	+	+
Blink reflex	+	+



Figure 1 A photograph of the left eye of a Cocker spaniel. (For better quality, figures can be viewed in the TJVM website)

Question

What is your diagnosis ?

Please turn to the next page for answers

Answer

Posterior lens luxation; lens ventrally displaced

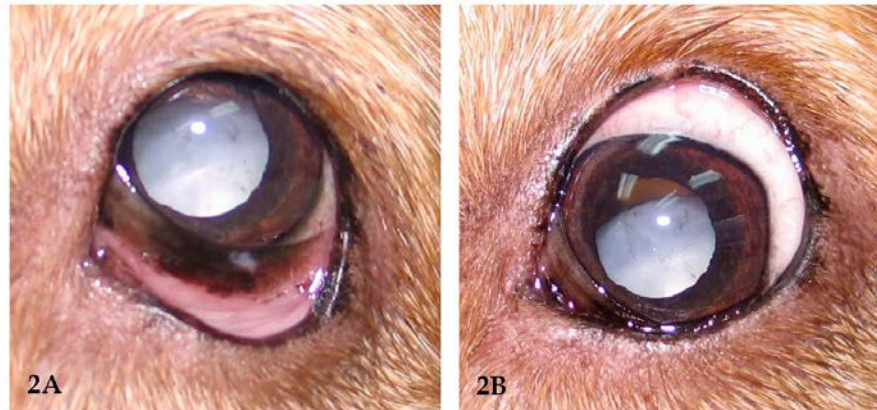


Figure 2 Photographs of the left eye; the eye at primary gaze (2A) revealing dense lens with disperse pigments on the anterior lens capsule, aphakic crescent dorsally of the pupil; the eye rotating downward (2B) revealing orange fundus reflection through apparent aphakic crescent.

(For better quality, figures can be viewed in the TJVM website)

Comments

Lens luxation is resulted from tearing of zonular fiber around the lens. In this case luxation may occur spontaneously following mature cataract that causes weakened zonules, particularly in senile animals.

Common associated signs are conjunctival hyperemia, ocular pain, lens wobbling, vitreous degeneration and vitreous prolapse. Obvious ocular pain usually occurs due to irritation to other ocular structures or lens-induced uveitis caused by cataractous lens. The eye should be medicated topically with anti-inflammatory drugs to control inflammation secondarily to displacement of lens.

The dorsal edge of the lens is visible in the pupil (Fig 1 and 2). The dorsal area of the pupil where the lens is missing is called an aphakic crescent; a pathognomonic lesion of zonular rupture of lens. Secondary glaucoma should closely be monitored because of an obstruction of normal aqueous outflow pathway and possibly, obstruction of ciliary cleft by vitreous prolapse. In this case, the IOP had been normal for years while the displaced lens had

remained at the same location. Limited activity was suggested to the dog.

Topical hypotensive medication is suggested if IOP is elevated. Removal of the luxated lens should be performed before the lens moves into the anterior chamber. Olivero and group (1995) reported occurrence rate of secondary glaucoma as a failure after lens removal; 73% after anterior lens luxation, while 38% after posterior lens luxation.

References

- Glover TL, Davidson G, Nasisse MP and Olivero DK 1995. The intracapsular extraction of displaced lenses in dogs: A retrospective study of 57 cases (1984-1990). J Am Anim Hosp Assoc. 31(1): 77-81
- Grahn BH, Storey E and Cullen CL 2003. Diagnostic Ophthalmology. Can Vet J. 44: 422-430
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