

## Ophthalmology Snapshot

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### *History*

A 9 year-old male dog, named Sumo, was brought in by the owner to the Small Animal Teaching Hospital, Chulalongkorn University for a second opinion. History taking revealed that Sumo had never been seen by a veterinary for eye abnormality until the last 2 months when a mass-like lesion on the right eye appeared. Tobramycin ointment had been prescribed but the lesion remained. The similar lesion emerged on the left eye last week. This eye has not yet been treated.

Summation of ophthalmic examinations:

Title	Right eye	Left eye
Menace response	strong	mild
STT	8	6
Ocular discharge	mucopurulent	purulent
Cornea	keratitis	pigmentary keratitis



Figure 1. Front view photograph of "Sumo".

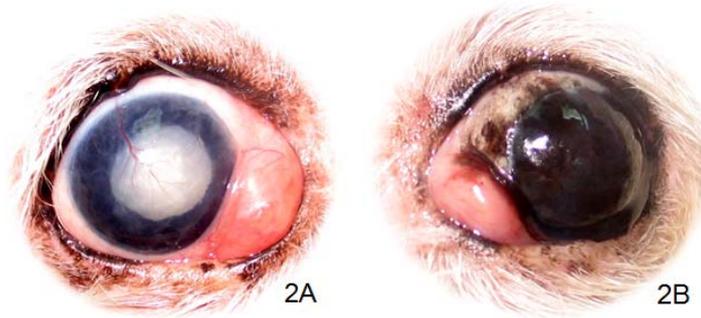


Figure 2. Close-up photograph of; (A) the right eye and (B) the left eye.  
(For better quality, figures can be viewed in the TJVM website)

### **Question**

Give the tentative diagnosis

Please turn to the next page for answers .....

*Answers**Tentative diagnosis:*

- Prolapse of gland of the nictitating membrane
- Eversion of the cartilage of the nictitating membrane
- Protrusion of the nictitating membrane (without prolapsed of the gland)

*Comments*

Nictitating membrane or third eyelid is a thin sheet of tissue that not only protects the cornea but also contributes to normal tear production. Tubuloacinar gland surrounding the ventral part of the cartilage contributes aqueous portion of tear film. Comprising of cartilage, it can move passively.

Prolapse of the gland is common in dogs in particular; Cocker spaniel, Bulldog, Beagle. Even though it is very rare in cat, occurrence was described. Underlying cause has not been scientifically reported however, it is believed to be associated with weakness around the gland especially its ventral part. When a gland protrudes above the leading edge of the membrane, it appears red, enlarged and inflamed. The gland should not remain in a prolapsed position because it can cause a reduction of the tear film production, persistent irritation and even an increase size of the gland. Medical treatment is not successful. Surgical repositioning of a gland is highly recommended. Choice of surgical techniques is a personal preference.

Eversion of the cartilage of the nictitating membrane is a congenital defect that is frequently found in large breed dogs. Palpation is a simple examination to differentiate eversion of the cartilage from prolapsed of the gland.

Protrusion of the nictitating membrane usually occurs in large breed dogs as well or be a secondary result from other ocular abnormalities. Further investigation should be performed to obtain final diagnosis and treatment.

*References*

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- Schoofs, S.H. 1999. Prolapse of the gland of the third eyelid in a cat: a case report and literature review. *J. Am. Anim. Hosp. Assoc.* 35(3): 240-242.