Cherry Eye: Prolapse of Third Eyelid Gland in Dog- A Case Report

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Abstract Third eyelid covers the medial canthus of the eye and consists of T-shaped flap like cartilage and tear gland, both are helpful in protection of eye. Prolapsed gland appeared as a dark pink to reddish mass and misdiagnosed as a tumor and treated like a tumor in which gland is excised out.

The present report describes a case of cherry eye (prolapse of third eyelid) in 18 months old Cocker spaniel. The case was treated by adopting massage method to replace the third eyelid back to its place followed by administration of eye drops. The treatment method was successful as there was no recurrence when the animal was followed-up for 3 months.

Keywords: Dog, Cherry eye, Third eyelid prolapse, Treatment, Massage method

Introduction

Cherry eye is a common ophthalmic malady of dogs and rarely of cats in which eversion / prolapse of third eyelid gland does occur. The prolapsed third eyelid makes it vulnerable to the outer environment. Breeds especially Pekingese, Neapolitan Mastiff, Cocker Spaniel, Beagle, Bulldog and Basset Hound are more prone to this pathological syndrome [1, 3]. The disease could occur in any age
but most common in young ones *i.e.* puppies. This can occur in 2-3 years of age and may be unilateral or bilateral [4, 7]. Genetic basis of the disease are not identified and third eyelid is important in protection of eyes as well as production of tears [7]. The eversion of nictitating gland is written off as glandular hyperplasia, hypertrophy, nictitating gland adenoma, protrusion of gland or cherry eye [9]. The main cause of prolapse is weakening of supportive ligament that fixes the gland [2]. The present manuscript is a maiden attempt to report the cherry eye disease in dogs from Pakistan.

**Case Description**

A 1.5 years old male dog (Cocker Spaniel) was presented to Veterinary Teaching Hospital (VTH), Dept. of Clinical Medicine and Surgery, University of Agriculture, Faisalabad, Pakistan, with a complaint of pinkish lump like structure protruding out at the base of left eye from the medial canthus. The size of the structure was similar to that of cherry with bright pink color. This condition was 15 days standing and the patient was in great stress from the last 5 days due to severe irritation and lacrimation (Plate I).

Physical examination revealed that temperature of the animal was normal *i.e.* 101.6 °F with severe panting and salivation. Other parameters (Respiration 80 bpm and pulse 90 per minute) were also recorded. Regarding previous treatment, patient was treated with eye drops and systemic antibiotics.

The patient was treated by applying the Lignocaine gel on eye (Lidex®, Caraway, Pakistan) and gently massaging the protruded mass clockwise and anti-clock wise by closing the eyelids. After giving 3 rounds of massage each of 4-5 minutes, the prolapsed gland was replaced back to its original position (Plate II). Then patient was medicated topically with eye drops (Mebradex®, MediPak,
Pakistan) to keep the eye surface wet and reduce the chances of inflammation and infection. The animal was monitored for recurrence and there was no recurrence up to 3 months post treatment.

**Discussion**

Third eyelid covers the medial canthus of the eye, consists of T-shaped flap like cartilage and tear gland, both are helpful in protection of eye [2]. Prolapsed gland appeared as a dark pink to reddish mass and misdiagnosed as a tumor and treated like a tumor in which gland was excised out, but this resulted in dryness of the eye because third eyelid gland or nictitating gland is one of the tear producing glands that keeps the eye moist. The main complication after its removal was kerato-conjunctivitis siccas (KCS) [5]. Third eyelid gland produces 30% of the total tears [7, 10] which are important for the intactness of eyelid, eyeball surface and conjunctiva [8]. This prolapse happens because of the loss of tensile strength of the peri-orbital supporting ligament that anchors the gland to the peri-orbit [9]. So the prolapsed gland becomes exposed to the external environment which leads to increase in the glandular size due to abrasion and drying [3, 7].

Regarding its treatment, two methods are usually adopted; excision of gland and replacement of gland. Excision of gland is an old method and not recommended now-a-days because the whole gland is nipped at its base which leads to 'dry eye’. This causes further complications. Regarding second option, cosmetically correction of prolapsed gland is the most recommended method in which 'tucking' technique is usually used. Previously single tucking technique was used but if somehow suture may adhere, this will cause blepharospasm and visibility of the suture. So this method is modified now and a wedge of tissue is removed but how much tissue is removed and tiny sutures will tighten the gap or not, are the major points of consideration. Main complications of modified
techniques are inflammation, chances of recurrence and failure of stitch holding capacity [6]. The present case was treated by simple massage method followed by no recurrence. So it is suggested that the massage method to replace the prolapsed third eyelid is considered one of the best and safest methods to treat the cherry eye condition in dogs if there is no recurrence.

Plate I. Prolapsed third eyelid in dog (Cockerel Spaniel)
Plate II. Reduced prolapse of third eyelid after application of massage method

References


