Cherry Eye: Prolapse of Third Eyelid Gland in Dog

Introduction

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

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. 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. Genetic basis of the disease are not identified and third eyelid is important in protection of eyes as well as production of tears. The eversion of nictitating gland is written off as glandular hyperplasia, hypertrophy, nictitating gland adenoma, protrusion of gland or cherry eye. The main cause of prolapse is weakening of supportive ligament that fixes the gland.

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 . 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 Third eyelid gland produces 30% of the total tears which are important for the intactness of eyelid, eyeball surface and conjunctiva . This prolapse happens because of the loss of tensile strength of the peri-orbital supporting ligament that anchors the gland to the peri-orbit . So the prolapsed gland becomes exposed to the external environment which leads to increase in the glandular size due to abrasion and drying .

Treatment options:

Cherry eye can be treated with topical antibiotics, anti-inflammatory drugs and surgery. Topical therapy can help reduce the inflammation and prevent or resolve the secondary infections that are commonly associated with the condition. However, topical treatments alone are rarely successful in curing cherry eye. In almost all cases, the prolapsed third eyelid gland will need to be repositioned surgically.

At one time, the treatment of choice for cherry eye was to remove the prolapsed gland of the third eyelid. However, removing the gland will cause the dog to suffer from severe dry eye, because that gland is responsible for much of normal tear-film production. Surgical excision of the third eyelid gland will greatly increase the dog's risk of developing keratoconjunctivitis sicca (KCS), or "dry eye," as it ages. If the gland of the third eyelid is removed, the dog will need to be treated several times daily with moisturizing eye drops for the rest of its life.

As veterinarians have learned more about the importance of the gland of the third eyelid in tear production, surgical repositioning rather than removal of that gland has become the treatment of choice for cherry eye. Many different surgical repositioning techniques have been reported, and each veterinarian will determine which technique to use in any given case. Some considerations include the ease of the procedure, its potential effect on future tear production, the chances of re-prolapse and the expected cosmetic results. While selection

of the surgical technique is a matter of personal preference, all of the repositioning techniques, when performed properly, should result in a cosmetically acceptable outcome with a very low chance of recurrence.

If a dog has only one of its eyes affected by cherry eye, the owner should realize that surgical correction of the affected eye will not reduce the risk of cherry eye developing in the other eye. Currently, there are no medical or surgical procedures to prevent cherry eye in dogs. Many dogs will have to go through separate surgical procedures to correct cherry eye one eye at a time.

Prognosis

Surgical correction of cherry eye is usually very successful. Post-operatively, the affected eyes of most dogs will return to full normal function, as long as the affected gland is repositioned rather than removed. If the gland is removed, eye drops will be necessary to provide normal lubrication of the eye for the remainder of the dog's life.