

## **CHERRY EYE IN CROSSBRED DOG AND ITS SURGICAL MANAGEMENT**

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**Abstract:** A one year old crossbred male dog was presented to the Department of Veterinary Surgery and Radiology with complaint of protrusion of reddish mass of tissue at medial canthus of left eye from last 20 days. After complete clinical examination, the condition was diagnosed as cherry eye and surgical correction was performed. There was no complication and dog recovered eventually.

**Keywords:** Cherry eye, Dog.

### **INTRODUCTION**

Cherry eye by definition is a prolapse of the gland of the third eyelid, which is also referred to as the Nictitans or Lacrimal (tear) gland. Cherry eye is a common term for prolapse of the third eyelid gland. It is also called as glandular hyperplasia, hypertrophy, nictitating gland adenoma (Mirchel, 2012). The prolapsed third eyelid gland is visible as a pink mass or 'lump' near the inner corner of the eye and resembles a fruit cherry, hence the common term '**Cherry Eye**'. Cherry eye is a common ophthalmic problem of dogs and rarely of cats. The condition can occur in one or both eyes. Breeds especially Bulldog, Pekingese, Cocker Spaniel, Neapolitan Mastiff, Beagle and Basset Hound are more prone to this pathological syndrome (Herrera, 2005). Normally, the gland of the third eyelid is held in place by a connective tissue attachment between the ventral third eyelid membrane and the periorbital tissues located in the inside corner of the eye. The functions of the third eyelid are to protect the eye and distribute the tear film. The cause of the cherry eye is unclear. However, it is believed that it may occur secondary to inflammation and a weakness in the supporting ligament attaching the gland to its normal anatomical position, causing a protrusion of the gland and eversion of the third eyelid (Edelmann *et al.*, 2013). In response to the inflammation, the gland begins to hypertrophy. In most cases, this abnormal swelling and thickening prevent the gland from returning to its normal position. Inflammation and hypertrophy of the gland account for its red, enlarged and inflamed looking like a pink, fleshy mass appearance at the medial canthus of the eye. Reduction of the tear production, persistent

irritation, increased in size of the gland, ulceration, and kerato conjunctivitis sicca may occur if the membrana nictitans is allowed to stay in the prolapsed position for a long time (Dehghan *et al.*, 2012).

### **HISTORY AND CLINICAL OBSERVATION**

A one year old crossbred male dog was presented to the Department of Veterinary Surgery and Radiology with complaint of protrusion of reddish mass of tissue at medial canthus of left eye from last 20 days. On clinical examination revealed cherry like reddish fleshy mass protruded from the medial canthus of the left eye (Fig. 1). Conjunctivitis and ocular discharges from the affected eye were also noticed. The physiological parameters (heart, pulse respiratory rates, and rectal temperature) were within normal range. Dog was rubbing his eye due to severe irritation and was very uncomfortable. The patient was great stress from last 5 days. On the basis of history and clinical observation, the case was diagnosed as cherry eye. It was decided to repair the condition by resection technique.

### **SURGICAL TREATMENT AND DISCUSSION**

The dog was prepared for surgery as per the standard preoperative preparation of periorbital area. The animal was premedicated with inj. Atropine sulphate @ 0.02 mg/kg i/m and general anaesthesia was induced with combination of inj. Xylazine @ 1mg/kg i/m and inj. Ketamine @ 5 mg/kg i/v. The dog was controlled in lateral recumbency with affected eye facing upward. The gland was excised by resection technique. In this, prolapsed mass of third eyelid gland was completely exteriorized by applying traction with thumb forceps and artery forcep was placed applied at the base of mass (Figure 2). Then interrupted horizontal sutures were applied ventral to the prolapsed gland with knots on its anterior side using catgut no. 3/0 (Figure 3). After ligation, the third eyelid gland was excised just above the suture line (Figure 4). Dextrose saline 5% (500 ml) was administered continuously during operation. Post-operatively, dog was administered with systemic administration of inj. Intacef Tazo 562.5 mg i/m for 7 days, inj. Dexona @ 1 ml subconjunctival and inj. Melonex (Meloxicam) @ 1 ml/kg i/m for 3 days alongwith intraocular administration of gentamycin eyedrops t.i.d for 8 days. Elizabethan collar was advised to prevent scratching or rubbing of eye by the dog paws. The dog showed uneventful recovery within 10<sup>th</sup> post-operative days. The dog was re-examined after 3 months and no complication was recorded.

Cherry eye is more frequent in young animals, up to two years of age, and may be unilateral or bilateral in nature (Gellat, 1991). The third eyelid gland is located on the distal portion of the third eyelid, fixed by a support conjunctiva tissue to the periorbital fascias. The protrusion

of third eyelid gland occurs because of the loss of tensile strength of the peri-orbital supporting ligament that anchors the gland to the peri-orbit (Mitchel, 2012). The condition is characterized by the glandular exposition close to the orbit's inferior medial commissure, hyperemia, increase in the gland volume and ocular discharge and conjunctiva tissue inflammation. The prolapsed gland appeared as a dark pink to reddish mass and misdiagnosed as a tumor and treated like a tumor in many cases. There are reports that surgical correction of the prolapsed third eyelid gland has been performed either by excising the third eyelid or by reconstruction of the third eyelid (Peiffer and Harling, 2002). In the present case, resection technique has been used for correction of prolapsed third eyelid gland as recommended by Barnett (1978). Similarly resection technique was also supported by Caplan and Yu-Speight, 2007. The surgical correction was well performed and dog recovered uneventfully with no complication.

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**Figure 1: Preoperative appearance of the prolapse of the third eyelid (Cherry eye)**



**Figure 2: Artery forcep is placed after exteriorizing third eyelid gland**



**Figure 3: Interrupted horizontal sutures are applied below the third eyelid gland**



**Figure 4: After surgical correction of the prolapsed third eyelid gland in left eye**