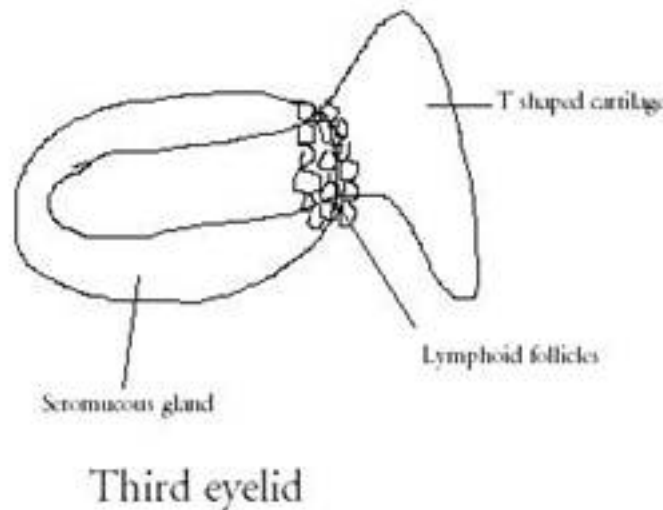


## AFFECTIONS OF THIRD EYELID (MEMBRANA NICTITANS)

### **Anatomy:**

- Situated at the median canthus of the eye.
- Composed of T - shaped cartilage (comma shaped in camels) covered from both sides with conjunctiva.
- Inner surface continues with bulbar conjunctiva and outer surface with palpebral conjunctiva.
- Has a seromucous gland at the base of the cartilage similar to lacrimal gland histologically.
- Cluster of lymphoid follicles are seen on the bulbar surface just superior to the gland. There is no muscle.
- Connective tissue attaches the membrane to the orbital tissue



### **Functions:**

- Protects cornea from injuries.
- Helps in uniform distribution of precorneal tear film.
- The seromucous gland provides watery layer of precorneal tear film.

**CONGENITAL DEFECTS:** Mostly seen in puppies. May be bilateral.

#### ***1. Inversion or Eversion of 3<sup>rd</sup> eyelid:***

- Deformity is seen in breeds like German shepherd, St. Bernard.
- The condition develops because of the bending of the cartilage during growing period.

#### **Symptoms:**

- There is increased visibility of the membrane.
- Watery to Mucoïd discharge.

- Close examination reveals the deformity of the cartilage (inversion or eversion)..
- Associated with the conjunctivitis in long standing cases.

**Treatment:**

- Surgical excision of the bend area of the cartilage is done under general anaesthesia.
- Incision closure is normally not required.
- If required (normally when the gland is exposed), closure of the wound is done by using 4-0 to 6-0 chromic catgut/nylon/Vicryl applying simple continuous pattern.
- Postoperatively install topical antibiotics with corticosteroids for 5-7 days.

**2. Prolapse of the gland (Cherry Eye):**

Protrusion of the gland over the free edges of 3<sup>rd</sup> eyelid is called hypertrophy, hyperplasia or adenoma.

- Condition is commonly known as “Cherry Eye”.
- Condition develops due to the congenital weakness of connective tissue in between cartilage and the glandular tissue.
- If unilateral, other eye should be examined for potential prolapse.
- Evaluate tear production with Schirmer tear test.

**Treatment:**

- If possible return the gland to its normal position under general anaesthesia and keep it in position by suturing.
- Alternately, if the above procedure fails, surgical removal of the gland is done.
- Check haemorrhage with topical adrenaline (1:5000).
- Postoperatively install topical antibiotics with corticosteroids for 5-7 days.

**3. Inflammation of third eyelid (Plasmoma):** Inflammatory and degenerative disease of 3<sup>rd</sup> eyelid.

- Plasma cell infiltration of 3<sup>rd</sup> eyelid is a specific disease of German shepherd.
- The cause is not established but considered as some immunological defect.

**Symptoms:**

- Bilateral inflammation with depigmentation of the edges of the 3<sup>rd</sup> eyelid.
- Associated with the Mucoïd discharge.
- Thickening of the eyelid as disease progresses.
- May be associated with keratitis.

**Treatment:**

- Immediate sub-conjunctival injection of corticosteroid.
- Topical antibiotics and corticosteroids ointments for 10-14 days, 6-8 times

daily.

**4. *Prolapse of 3<sup>rd</sup> eyelid:*** An acquired condition mostly seen in cattle due to median canthus injury leading to weakness of the connective tissue anchorage to the orbital tissue. Surgical excision is done under regional block followed by topical antibiotics with corticosteroids for 8-10 days.

**5. *Neoplasm of 3<sup>rd</sup> eyelid:*** Mostly squamous cell carcinoma is observed in bovines. Must go for thorough examination of whole eye. Surgical excision is done under regional block followed by topical antibiotics with corticosteroids for 8-10 days.

### **THIRD EYELID FLAP TECHNIQUE**

A technique used to protect the cornea for better healing during many disease conditions.

#### **Indications:**

- Corneal ulcers
- Iris prolapse
- Management of corneal wounds