**Eyelid Disorders in Ruminants**

Entropion: This is a rare condition of the lids characterized by an inward turning of the lids. The inward turning is called inversion. The turned-in lids can result in irritation and abrasion of the cornea caused by contact with either the eyelid itself or hairs on the eyelid. This can lead to corneal ulceration, which will interfere with vision. Severe, untreated entropion can lead to perforation of the cornea. The condition can be seen in any animal, but is most often seen in young animals soon after birth.   
  
Treatment involves eye medications to help calm the irritate eye. Temporary sutures may be placed to evert the lid and decrease irritation to the eye. Once underlying causes are treated, those cases that continue to have entropion are treated with surgical techniques to roll the eyelid out. 

Ectropion: This is a rolling out of the eyelids. The outward turning, which is called eversion, results in exposure of the conjunctiva. Exposure of the conjunctiva can result in inflammation and disease of the conjunctiva and cornea. Chronic changes in the cornea caused by ectropion can lead to loss of vision. This problem is also rare in cattle.   
  
Signs of ectropion include the visible outward rolling of the eyelid with exposure of the conjunctiva. Associated conditions include drainage from the eye, recurrent infections of the eye, and irritation and inflammation of the conjunctiva. Drainage may be mucoid (looks like mucus) or mucopurulent (looks like mucus and pus) and is accompanied by staining of the face.   
  
Treatment includes applying lubricants and protectants to the eye and conjunctiva and treating infections with appropriate antibiotics. Daily cleaning of the eyes and face are part of this therapy. If conservative therapy does not control the irritation and infection, definitive therapy includes corrective surgery to reduce or lift the eyelid.

Dermoids: These are growths that can occur on the eye. They are present at birth and may involve the eyelid. The surface of the growth often contains hairs. Surgical removal is the only treatment. Seen below in figure #1

|  |
| --- |
| http://www.infovets.com/books/dairy/F/Images/F220-02.jpg  Figure #1: The white arrow identifies a dermoid on the surface of the cornea.  Blepharitis: Blepharitis is inflammation of the eyelids. It can be caused by any condition that results in inflammation. In cattle, the most common causes of blepharitis are viral and bacterial infections. Conditions such as trauma, parasites, and neoplasia can also cause blepharitis. Blepharitis may occur alone, but is often accompanied by inflammation and infection of surrounding tissues leading to conjunctivitis and keratitis.  All animals can suffer from blepharitis. It may involve one or more lids, and be localized to one spot or involve large areas of the involved lids. Signs may include eyelid spasm, squinting, pain, ocular discharge, discoloration of the lids, hair loss surrounding the lids, redness, crusting, abscesses, pustules, and swelling. There may be concurrent irritation and scarring of the cornea, and redness and swelling of the conjunctiva.  Diagnosis is based on physical examination and specialized tests. Cultures and sensitivities, cytology, skin scrapings, and biopsies may be performed to help in the diagnosis. Underlying conditions such as parasitic skin infections and bacterial skin infections must be diagnosed and eliminated. Once a diagnosis is reached, treatment is designed to eliminate the underlying cause and remove the inflammation from the eyelid. Treatment may involve medications such as antibiotics and anti-inflammatories, along with topical medications that are instilled into the eye and on the lids. Topical therapies may include appropriate antibiotics, corticosteroids, and combination antibiotic/anti-inflammatory medications. |