Proceedings of the World Small Animal Veterinary Association
Sydney, Australia – 2007

Hosted by:

Australian Small Animal Veterinary Association (ASAVA)

Next WSAVA Congress

33rd Annual World Small Animal Veterinary Association 14th FECAVA Congress
DUBLIN, IRELAND 20th - 24th August 2008
SURGICAL MANAGEMENT OF THIRD EYELID PROBLEMS IN DOGS
Robin G Stanley, BVSc(Hons), FACVSc-Ophthalmology
Animal Eye Care
181 Darling Rd
East Malvern, 3145
Australia
Email animaleyecare@bigpond.com
Phone +61 (0)3 9563 6488
Fax +61 (0)3 9571 9268

Cherry Eye Surgery

A cherry eye is a prolapse of the third eyelid gland. This is seen most commonly in younger dogs. It may present unilaterally, but the condition can become bilateral within a short period. There is a marked breed predisposition. In our practice we commonly see cherry eyes in Maltese, Bassets, Rottweilers, Neapolitan Mastiffs and Shar Peis.

There are a number of techniques that are described for the surgical replacement of third eyelid gland prolapse. Great consideration must be given to large breed dogs as they can also present with third eyelid cartilage eversion simultaneously with the cherry eye.

My preferred technique for cherry eye surgery is a modification of the Morgan technique. In this technique incisions are made on the eyeball side of the third eyelid, in an ellipse both above and below the prolapsed gland. The Morgan technique describes invagination of the gland. In the modification described by Cecil Moore the conjunctiva overlying the gland is excised, then invaginated. I use 6/0 absorbable suture in a buried continuous pattern, to close the incision. In my experience failures are rare with this technique.

Cherry eye surgery is challenging in large breed dogs, these dogs often have a prolapsed third eyelid gland, third eyelid cartilage eversion as well as overly wide third eyelids.

Cherry Eye Surgery Technique

This is my modification of the Morgan Technique.

Premed with a systemic non steroidal anti-inflammatory - NSAID drug. The third eyelid can easily swell up after surgery. Take care when handling the third eyelid. Use a meticulous atraumatic technique, with the appropriate instrumentation.

Step 1. Expose the inside (bulbar) aspect of the third eyelid. Use the haemostats either side of the gland.
Step 2. Using the Stevens tenotomy scissors, make an incision through the conjunctival epithelium around the gland, which is sitting up above the surface of the third eyelid. It is often difficult to make the incision around the dorsal aspect of the third eyelid where the epithelium is often tightly adherent to the underlying third eyelid cartilage. I then dissect the conjunctiva off the surface of the protruding gland.

Step 3. Use a buried knot of 6/0 absorbable suture e.g. Polysorb. Then use a buried suture pattern to completely close the incision. The gland should then pop back into place, as the incision is closed. Finish off the suture line with another buried knot. The original technique as described by Moore and later Morgan places their knots on the palpebral (i.e. outside of the third eyelid). They do not remove the conjunctiva off the third eyelid gland. They also suggest leaving the ends of the incision open so as not to impede the flow of secretions from the third eyelid gland. In my modification I use a buried continuous suture, so no suture is exposed to the cornea.

In large breed dogs I will usually remove some of the vertical section of the third eyelid cartilage. I will also use simple buried inverted sutures to help hold the gland into place, usually 3 of these will then take tension off the linear conjunctival closure.

Problems associated with cherry eye surgery

1. The gland is huge and very inflamed. Often occurs when the gland has been out of place for some time. Solution – pretreat with topical corticosteroids and oral anti-inflammatories for a week before surgery.

2. The gland is still prominent after surgery. Usually this is because i. you have not made a wide enough conjunctival incision ii. there are problems with the third eyelid cartilage e.g. eversion or the third eyelid cartilage is too large. This is a huge problem with large breed dogs such as Bassets, Neapolitan Mastiffs etc. ALWAYS BE EXTREMELY CAUTIOUS in doing cherry eye surgery on these dogs. It may be worthwhile considering referral in these cases.

3. The gland pops out again after surgery. This is usually as the result of wound breakdown. Better attention to the wound closure is required. In such cases I will usually use the 3 buried, inverted, simple sutures in addition to the linear conjunctival incision closure.

4. The third eyelid cartilage has prolapsed and has caused the leading edge of the third eyelid to be folded over. This is seen most commonly in large breed dogs. For large breed dogs with a cherry eye, it is recommended to also remove some of the vertical portion of the third eyelid cartilage at the time of the cherry eye surgery. See the next section on third eyelid cartilage eversion.
References
Imbrication technique of replacement of prolapsed third eyelid gland. Moore CP. In: Current techniques in Small Animal Surgery Edited by Bojrab M.

Third Eyelid Cartilage Eversion

Third eyelid cartilage eversion is seen most commonly in large breed dogs. At Animal Eye Care we see the problem most commonly in Weimaraners, Dobermans and German Shepherds.

The leading edge of the third eyelid is folded over towards the lower eyelid. The third eyelid has a scrolled over ‘ram’s horn’ appearance. The deformed third eyelid cartilage can often easily be seen under the conjunctival surface.

The main differential diagnosis is a cherry eye.

Surgery is required to remove the deformed piece of cartilage. The problem if left can cause chronic conjunctivitis, causing a purulent discharge and in some cases dry eye.

Make a vertical incision on the inside (bulbar aspect) of the third eyelid. Use the Stevens tenotomy scissors to dissect the conjunctiva off the third eyelid cartilage. Then use the scissors to bluntly dissect the deeper connective tissue of the third eyelid cartilage. Then cut above and below the deformed piece of cartilage. The incision does not need to be sutured closed.

The third eyelid is then sutured across the cornea to the dorsal bulbar (eyeball) conjunctiva. Use two simple interrupted sutures of 6/0 Dexon. This is to stop the third eyelid from scarring away from the eyeball. The sutures can be easily removed under local anaesthetic 10 to 14 days later.