The majority of abnormalities associated with canine eyelid position begin with a problem of length, specifically, macroblepharon. Failure to address the issue of length when correcting entropion, ectropion, or their combination will often bring about a less than satisfactory result and possible failure. As a surgeon, I have never surgically corrected abnormalities of eyelid position without first measuring and correcting the associated problem of macroblepharon. In general, most canine eyelids can be shortened to 23 to 26 mm using the technique of lateral canthoplasty, and then the residual eyelid can be corrected for position. Remember, the eyelids are there to serve and protect the cornea, and the medial to lateral length of the canine cornea is approximately 16 mm, regardless of breed.

Abnormalities of position will include entropion, ectropion, and a combination of both. First, measure the length of the eyelids using Jameson calipers. Perform a lateral canthoplasty to shorten the eyelids to the appropriate length, and then, for entropion, a Modified-Hotz celsus may be performed to correct the remaining in-rolling of the upper and/or lower eyelids. For simple ectropion, the lateral canthoplasty alone may be sufficient to correct mild cases. For more severe ectropion, additional wedge-resection or other techniques may be required. For entropion/trichiasis of the medial canthus, as seen in the pug, a medial canthoplasty may be indicated. Although this procedure is similar to a lateral canthoplasty, care must be taken to avoid trauma to the nasolacrimal ducts.

When suturing eyelids, the smallest suture indicated should be used. This is typically 6-0 to 7-0 suture. For the deep layer, an absorbable suture, such as polygalactin, may be used. For the skin, I prefer a monofilament polypropylene type suture, as these are less reactive and will result in less inflammation and a better outcome. Sutures should be kept clean using a warm, moist compress, and an E-collar should be worn.

In addition to abnormalities of position, abnormalities of hair, such as distichia, ectopic cilia, and trichiasis, are also common. Depending on the severity, these may or may not require treatment. Of these, ectopic cilia is the most common to require treatment and is more common in certain breeds, such as the Shih Tzu. Treatment should be directed at not only removing the hair, but also destroying the hair follicle. This can be done using surgical excision, cryosurgery, or laser ablation.

Eyelid agenesis is seen as a congenital abnormality in the cat. It most commonly affects the superior temporal eyelid, and treatment is indicated if the health of the cornea is compromised. A lip to eyelid transposition is the most effective surgical treatment.

Eyelid neoplasia in the canine is most often benign, while in the cat eyelid neoplasia may be more aggressive and can undergo metastasis. The most common eyelid neoplasms in the dog include Meibomian gland adenomas, melanomas, papillomas, mast cell tumors, histiocytomas, and basal cell tumors. In the cat, mast cell tumors, fibrosarcomas, and squamous cell carcinomas are most common. In general, up to one-third of the eyelid may be removed and a primary closure performed. This is provided the lesion involves the 12 or 6 o’clock positions. If a primary closure cannot be performed, a grafting procedure such as an H-plasty, rotational graft, lip-eyelid, or other such procedure may be considered.
The most common abnormality of the third eyelid is prolapse of the gland of the nictitans. It is important to remember that no matter what you do, these eyes are at increased risk for keratoconjunctivitis sicca (KCS). The greatest risk would be to excise the gland, and this is contraindicated. The least risk for KCS would be surgical replacement, with no therapy being the middle risk group. There are several techniques for replacement, and of those I have tried, the pocket imbrication technique works the best for me.

Pocket technique for correction of prolapsed gland of the nictitans

References