

## **Pigmentary Keratitis in the Lhasa Apso**

by Jenny Drastura

How many times have people approached you and your Lhasa Apso and asked, “How can your dog see through all that hair?”

We can try to keep our dogs’ hair out of the eyes with topknots or trimming, but even trimming can leave short hairs poking into the eyes, possibly causing harm over time.

### **Damage to the Cornea**

The cornea is normally transparent, moist and unpigmented with a smooth, even contour. Chronic irritation from abnormal eyelashes, errant hairs, injuries, corneal ulcers, wind, smoke, allergies, etc., can cause cloudiness, blood vessel disturbances and ulcerations.

Another consequence of irritation to the eyes is exposure (or pigmentary) keratitis, an inflammation of the cornea. The inflammation can be with or without infection and may not be noticeable to us at first. The pigmentation, which ranges from faint brown speckles to dense brown patches, is usually gradual, and if left undiscovered, can actually cover the central cornea and interfere with vision to the point of blindness. This keratitis is caused by the migration of melanin (brown) pigment into the normally clear cornea.

Exposure keratitis occurs frequently in brachycephalic (short-headed) breeds, where a large portion of the eyeball is exposed to irritants in the air. Excessive nasal skin folds can also irritate the eyes.

When there is decreased tear production (keratoconjunctivitis sicca, or dry eye), the cornea is quite prone to damage due to abnormal blink reflexes failing to keep the eyes properly lubricated. In some cases, there is simply no underlying cause.

A blind dog, regardless of the cause of blindness, will demonstrate decreased blinking and have abnormally dry eyes. Many blind dogs sleep with their eyes open as well, leading to dryness and excessive pigmentation.

The excessive pigment alone will not cause pain to the dog. However, some of the underlying causes can cause discharge, irritation and pain.

### **Diagnosis**

Exposure keratitis can be found during a routine physical exam when your vet examines the eyes with an ophthalmoscope or other light source. The disease will also be picked up during the corneal portion of the Canine Eye Registration Foundation (CERF) examination. Once the condition is diagnosed, your vet will further examine the eyes, eyelashes and eye reflexes for abnormalities that may be causing the irritation.

**Treatment**

Treatment is directed toward removing the cause of irritation. If the pigmentation is caused by eyelid or eyelash abnormalities, surgical correction is often needed to decrease further trauma. Surgery to remove the pigmentation is rarely performed due to further risk to the eye.

Topical medical therapy using corticosteroid ointment and/or a tear stimulator such as cyclosporine or tacrolimus can be successful in reversing pigmentation, but this takes months. In most cases, however, pigmentary keratitis cannot be reversed, though it may lighten over time.

Exposure keratitis due to irritation to the cornea is not hereditary, although some of the causes of the irritation are.

Regardless of the type of eye structure your dog has, an eye exam should be part of his or her annual check up. Many conditions can be reversed before they severely affect your dog's vision. Prevention is always the best medicine!