



Ophthalmology for Animals

Pigmentary keratopathy

Pigmentary keratopathy/keratitis in the dog is due to pigment migration onto the cornea and is a frequent cause of blindness in the Pug, Shih Tzu and Pekingese. The cause of pigmentary keratopathy is multifactorial. Corneal irritation from abnormally placed lashes, medial entropion (eyelids rolling in), and nasal fold trichiasis are common. Decreased production of tears ("dry eye") and/or premature evaporation of tears is almost always present. Pigmentary keratopathy occurs in dogs with shallow orbits and incomplete blinking, especially the Pug. Chronic irritation may permanently alter corneal immunity as well because the pigment migration often progresses to areas of non-irritated cornea if the problem is not addressed.

The pigmentation frequently progresses to cover the central corneal and pupil and eventually interferes with light entering the eye. Many owners are not aware of the problem until the animal becomes visually impaired.

Treatment is directed at halting the progression of pigmentation and correcting the inciting cause. Medial pocket flap canthoplasty (surgical reconstruction of the medial canthus) is frequently employed in young dogs with severe disease. Surgery usually slows the pigment but rarely halts it. Surgery is usually performed in dogs that have a good chance of going blind in their lifetime. Correction of distichiae, dry eye, nasal folds or skin disease (especially allergies or demodectic mange) is important. Removing the pigment directly via keratectomy, cryotherapy or laser excision is unfortunately ineffective and makes the disease worse.

Chronic topical medical therapy using corticosteroid ointment and/or a tear stimulator (cyclosporine or tacrolimus) are most effective in promoting regression of medial granulation and pigmentation. Combination therapy is usually started at twice daily. Significant results may not be seen for four to six months. Lubricant ointments such as lacrilube should be used prior to bedtime. In many scenarios, prevention of progression is considered successful therapy. Topical steroids can make ulcerations in the cornea worse if they occur. We advise clients to stop steroids and call us, your primary veterinarian or the emergency clinic immediately if squinting, pain or discharge is noted.