



Dry Eye (Keratoconjunctivitis Sicca)

Dry eye, or KCS, is a common disorder of the eye in dogs, less common in cats. KCS is most often caused by the lack of tear production due to several potential underlying conditions. The most common conditions associated with KCS are regional auto-immune disease impairing tear production by the glands around the eye and endocrine diseases (hypothyroid, Cushing's disease, diabetes mellitus). Less commonly, it can occur as a side effect of some drugs, chronic eye infections, and loss of nerve function.

Certain breeds are predisposed to KCS, they include brachycephalic breeds (those breeds with short, condensed faces). Bulldogs, Pugs, Yorkies, Shih tzus, Westies are commonly affected.

Dry eye may occur suddenly or onset can be gradual. One or both eyes may be affected. The tear film provides important defense and nourishment role for the eye. Lack of adequate, healthy tear film is painful and increases risk of ulcers and infection of the eye.

Common signs of dry eye include:

- Frequent blinking or squinting or rubbing of eye(s)
- Thick, opaque, yellow-green mucus and crusted discharge in/around the eye
- Redness of the white part of the eye or tissue around the eye
- Dull, lackluster appearance to the surface of the eye
- Pigment or scarring of the eye surface
- Ulcers to the surface of the cornea of the eye

Diagnosis

The most common method to diagnose KCS is by measuring tear production with a Schirmer Tear Test. Corneal ulcers are very common in patients with dry eye, so a corneal stain test is commonly done to identify their presence, which will be important to treatment. In cases where there are signs of dry eye, but tear quantity appears normal, additional tests may be needed to identify deficiencies in tear *quality*.

Treatment

Treatment for dry eye is usually life-long. The primary treatment for the majority of KCS patients is use of a topical immunomodulatory medication that reduces inflammatory agents around the tear production glands of the eye. In effect, tear production improves. It can take up to 12 weeks for tear production to significantly improve, but most cases see improvement within 1 month.

Supplemental administration of artificial tears may also be helpful.

Short-term topical antibiotics may be needed to treat secondary eye infections and corneal ulcers. Limited use of additional topical anti-inflammatory medication may also be used.

Rarely, some cases of KCS that are unresponsive to medical treatment may be surgical candidates.