Veterinary Specialty & Emergency Care
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SPONTANEOUS CHRONIC CORNEAL EPITHELIAL DEFECT (SCCED)

.What is SPONTANEOUS CHRONIC CORNEAL EPITHELIAL DEFECT (SCCED)?

Spontaneous Chronic Corneal Epithelial Defect (SCCED), otherwise known as a non-healing corneal erosion/ulcer, is a condition that occurs in middle age to older dogs which is characterized by delayed healing of a superficial corneal ulcer. This type of corneal ulcer occurs due to an inherent abnormality of the front part of the cornea such that the surface epithelial cells do not "stick down" properly to heal after spontaneous or traumatic ulceration.

Signs

Most dogs with SCCED exhibit signs of ocular discomfort, including squinting or pawing at the eye. In addition, there is often increased redness or cloudiness of the eye as well as increased eye discharge.

Diagnoses

This condition is diagnosed based on a history of delayed healing of a corneal ulcer in an older dog, along with the presence of characteristic changes found on ophthalmic examination. Specifically, this type of ulcer is superficial and is surrounded by a rim of loose epithelium (the layer of surface cells of the cornea). In addition, other causes of delayed corneal healing must be ruled out, such as dry eye, eyelid abnormalities such as entropion (in-rolling of the eyelid) and distichia (abnormally-directed eyelashes), or a foreign body.

Treatment

To promote healing, the loose epithelial cell edges of the ulcer are typically debrided, and often a procedure called an anterior stromal puncture or grid keratotomy (creating superficial punctures in the corneal surface to alter the chemical environment and provide a "foot hold" to stick down for healing epithelial cell resurfacing) is performed. In addition, in some dogs a bandage contact lens is placed on the eye to protect the cornea as it heals by helping the epithelial cells "stick down" better and reduce trauma to them from overlying eyelid movement, as well as improve comfort. Finally, an e-collar is recommended to prevent self-trauma to the eye through rubbing and perpetuating non-healing.

There is a greater than 80% chance that the erosion will heal with the above treatment within a couple weeks. For some dogs, repeated debridement or anterior stromal puncture is required for the ulcer to heal. Rarely, surgery is required for this condition. Surgical options include corneal gluing, thermokeratoplasty (where small, superficial burns are created in the corneal surface) to promote healing, or a superficial keratectomy (where we cut out the abnormal area of cornea). Though the keratectomy has a 99% chance of healing any given erosion, it requires general anesthesia and does not prevent future erosions to which affected dogs are predisposed.

Prognosis

The prognosis for this condition is very good, although several weeks are often required before the ulcer completely heals. Unfortunately, though, recurrence of this condition is common.

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