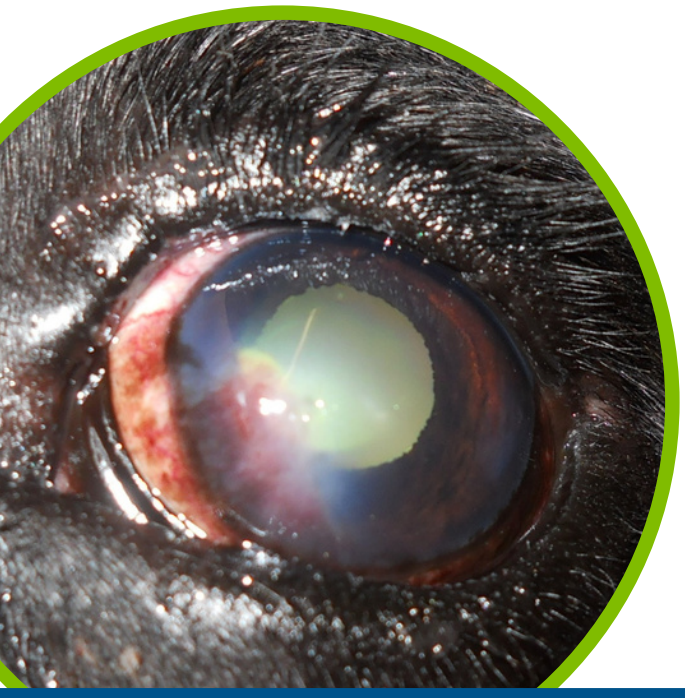
Ophthalmology Information Sheet

Indolent Ulcer

Introduction

Spontaneous chronic corneal epithelial defects (SCCEDs), also known as indolent ulcers, are a common eye disorder in dogs. SCCEDs are characterised by a non-healing, superficial corneal ulcer that fails to respond to conventional treatments. These ulcers can vary in the degree of discomfort they exhibit and increase the risk of the eye developing a secondary corneal infection and scarring, which can on occasions be vision threatening.

SCCEDs are caused by a failure of the corneal epithelium to adhere to the underlying stroma (think of the epithelium being the 'wallpaper' and the stroma as the 'plaster' of a wall). This poor attachment leads to breaks developing in the epithelium, exposing the pain receptors of the cornea. This failure of attachment is often due to a disruption in the normal healing process, which can be caused by trauma to the cornea or more commonly, genetic predisposition. Certain breeds such Boxers, Corgis, Staffordshire Bull Terriers and West Highland White Terriers are predisposed to developing SCCEDs although any breed can develop this condition, often in middle age.



Clinical Signs and Diagnosis

The ulcer itself may appear as a grey or white lesion on the cornea. Blood vessels may grow towards the ulcer from the outer aspect of the eye, resulting in red regions on the corneal surface. Fluorescein, an ophthalmic marker, is used to diagnose a SCEED, typically in association with loose epithelial edges when viewed under a hand-held microscope.

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Treatment

Treatment of SCCEDs using medication alone can be challenging, as these ulcers are often resistant to conventional therapy. Many cases of SCCED benefit from surgical treatments including:

- **Grid Keratotomy:** this involves creating a series of superficial incisions in the cornea using a surgical needle. The aim of this procedure is to promote epithelial cell migration and adhesion to the underlying stroma by providing 'gripping points'. Grid keratotomy is typically performed under general anaesthesia using an operating microscope. The majority of the corneal surface usually benefits from treatment to reduce the risk of ulcer recurrence, and a bandage contact lens is placed on the eye postoperatively in many cases to protect the cornea.
- **Diamond Burr Debridement:** this involves using a rotating ophthalmic grade diamond burr to remove the non-adherent epithelium and 'freshen' the underlying stroma to encourage the epithelium to fully attach and achieve healing. This procedure can be performed in some cases under local anaesthetic, if the area requiring treatment is accessible.

Following surgical treatment, antibiotic eye drops, corneal lubrication and some pain-relieving medications are typically prescribed until the ulcer has healed. This typically takes 7-10 days following surgical treatment.