# **Eye Factsheet**

# SCCED or Indolent Ulcer

## What is an SCCED/indolent ulcer?

On the cornea, wounds are usually referred to as 'ulcers'. Corneal ulcers can be 'superficial' or 'deep'. Both types of ulcer are usually very painful and require urgent treatment to allow for pain relief. However, superficial ulcers are less dangerous as they do not pose a risk of the eye bursting (perforating). Most superficial ulcers will initially be treated medically whilst many deep ulcers require surgical intervention for support. 'SCCED' or 'indolent ulceration' describes a condition, where your dog has developed a very superficial corneal ulcer, which fails to heal normally. The condition is characterised by a persistent, painful superficial ulcer that is surrounded by loose tissue. The veterinary surgeon can diagnose an SCCED/indolent ulcer by its typical appearance when the green dye is applied to the eye.





Above left an SCCED/indolent ulcer with central strong green stain uptake and then more subtle stain underrunning the loose epithelium at the edges of the ulcer. On the right the same eye after debridement – now the edges of the ulcer are sharply demarcated after all loose tissue has been removed.

# Why does a SCCED/indolent ulcer develop?

Most corneal ulcers in dogs are due to a mechanical cause (scratch, rubbing of the eyelids, dry-eye, etc.). Usually, if the underlying cause is treated, the ulcer should heal. In SCCEDs/indolent ulceration however, the ulcer occurs spontaneously (so no other underlying cause is found) and the failure of the ulcer to reesolve is caused by an abnormal healing process. As a result, the cells from the edge of the ulcer will slide along the cornea, but they cannot anchor down and end up floating loosely on the ulcer surface. Indolent ulceration is not due to infection and does not respond to the use of antibiotics.

# How is SCCED/indolent ulceration treated?

There are several different treatment approaches SCCEDs/indolent ulceration but all have two things in common:

- 1. The loose epithelial tissue, which surrounds the ulcer must be removed by debridement
- 2. The degenerate superficial layers of the cornea must be removed to allow the new epithelial cells to 'stick down'

Here at EVC, we will usually offer you one of the following treatment options:

- (1) Diamond burr debridement: debridement of the abnormal superficial corneal layers with a diamond burr
- (2) Grid or punctate keratotomy: creation of little 'nicks' or 'grooves' into the abnormal superficial corneal layers with a needle
- (3) Superficial keratectomy: Removal of the loose epithelium together with the diseased superficial corneal stromal layers by excision under the operating microscope.

Options 1 and 2 can be carried out under local anaesthesia or sedation whilst option 3 requires a full anaesthetic.



Above treatment options (left to right): (1) Diamond burr debridement, (2) Grid keratotomy, (3) Superficial keratectomy

### What are the success chances of the different treatment options?

On average, 7-9 out of 10 patients show healing of their ulcer within 14 days of treatment options (1) or (2). Those patients not healing within 14 days may require one or more repeats of the treatment. With treatment option (3), almost all patients have been reported to heal within 14 days after the operation.

### What is the best treatment option for my dog?

This can vary on each individual case. The majority of SCCEDs/indolent ulcers will be managed with minor interventions such as a (1) diamond burr debridement or (2) grid/punctate keratectomy. However, more complicated cases may require a (3) superficial keratectomy under general anaesthesia.

### What complications might occur?

Failure to heal is the most common problem in the treatment of SCCEDs/indolent ulceration, which may lead to either repeat treatments, or a superficial (3) keratectomy being recommended. Serious complications of SCCEDs/ indolent ulceration are fortunately rare, but infection can occur and there is no way to entirely prevent this.

Things you might see if the ulcer has become infected:

- Increased pain
- Increased discharge especially if this is grey mucous or yellow-green pus
- Change in the colour of the surface of the eye, particularly a bluish tinge

Some SCCEDs/indolent ulcers may heal with the ingrowth of blood vessels and healing tissue. This is a normal process is not a reason for concern. Once the ulcer has healed, the vascular response will gradually wither away but it may take up to six months until the cornea has reached its maximal clarity again.

If you are at all worried about the treated eye, do not hesitate to contact us at any time.



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