

## Corneal Sequestrum

### What is a corneal sequestrum?

A sequestrum is an area of darkly coloured, necrotic corneal tissue. It is only encountered in cats.



Darkly pigmented sequestrum but without too much discomfort – just a slight irritation for the cat.



Nasty sequestrum with infected corneal ulcer and a very painful eye for this poor cat.

### What has caused it?

In most cases the sequestrum has developed following the abnormal healing of a corneal ulcer. Thus the most common history is of an ulcer which has not healed up in a matter of 1 – 2 weeks as we normally expect, but has remained refractory to treatment and then the necrotic tissue has developed. This then reduces the chance of the eye healing normally. Some breeds of cat, mainly Persians, Colourpoints and Burmese are particularly prone to developing sequestra. There is a definite breed-related predisposition and sometimes no ulceration was noted prior to the formation of the sequestrum. In these breeds the second eye can develop similar problems. Sometimes 'cat flu' (feline herpes virus) can be implicated in the development of the disease as well.

### What is the treatment?

In some cats medical treatment and careful monitoring are sufficient providing no actual ulceration is present and the eye is comfortable. However in most cases the ulceration remains, some increased tearing and obvious discomfort are present and surgery is then the only sensible option. This is performed under general anaesthesia with magnification via an operating microscope. All abnormal corneal tissue – the sequestrum and ulcerated area – is removed (superficial keratectomy). If the sequestrum is shallow, then a contact lens is usually placed as a bandage to protect the operation wound and make the eye comfortable as it heals. These are left in place for 2-4 weeks. If the lesion is deeper, then a graft is required. This is usually from the conjunctiva (conjunctival grafts) but sometimes the cornea and sclera are rotated into the surgical site (corneoscleral transposition). Both procedures require the graft to be sutured into the surrounding cornea. The stitches are tiny and dissolve without needing removal. Post-operatively one or more type of drops is normally required, sometimes with a week of antibiotic tablets as well.

### What will the eye look like afterwards?

Some scarring is inevitable. If a keratectomy and contact lens is performed then some grey scarring will be present on the cornea once the wound has healed, and this will gradually fade in the following months. If a graft was placed there will be more scarring – initially the conjunctival graft will appear pink-red in colour but this will gradually thin. The graft is often trimmed 4-6 weeks after the procedure to reduce scarring, but some blood supply is usually left to reduce the risk of recurrence.



Graft one month after surgery

### Will the sequestrum come back?

Unfortunately a small, but significant number of cats can suffer from repeated sequestrum formation. This can be reduced by performing a conjunctival graft (but more scarring will be present compared to a superficial keratectomy). Both eyes can be affected.

### Will my cat still see?

Yes – even with a conjunctival graft the amount of scarring is usually modest, and normal or very near-normal vision should be maintained.

### Is long term treatment required?

In some cases treatment is only required for a few weeks. However in some cats, especially the predisposed breeds, or those with feline herpes virus, long term, even life long, medication can be necessary. Regular check ups with the Ophthalmologist might also be required.



Appearance 2 months after surgery