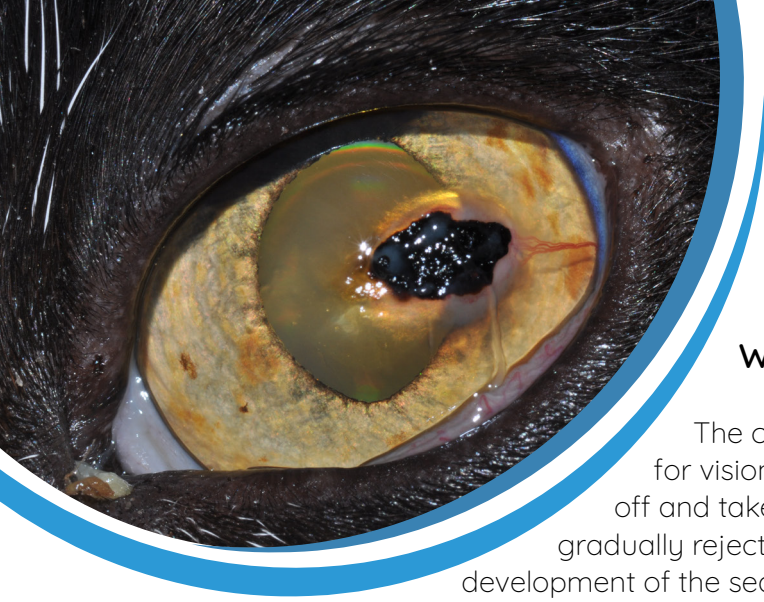


Sequestrum



What is a corneal sequestrum?

The cornea is the clear window of the eye. Its clarity is essential for vision. A corneal sequestrum is a piece of cornea that has died off and taken on a brown discoloration. The corneal sequestrum is gradually rejected by the surrounding healthy corneal tissue. The development of the sequestrum can initially be painless but with time, the affected eye will become sore as the sequestrum is rejected. Blood vessels may grow towards the sequestrum in an attempt to 'push it off' it and heal the defect, resulting in severe corneal clouding and impairment of sight.

Why has my cat developed a corneal sequestrum?

We still do not know all the reasons why a corneal sequestrum develops and research on the problem is ongoing. The most common reasons so far identified are:

- Breed-related with Persian, Burmese and British Short-Haired Cats often affected;
- Chronic corneal injury by rubbing of eyelid hair;
- Cat flu due to Feline Herpesvirus.



A corneal sequestrum in the eye of a Persian cat. Note the deep black discoloration of the normally clear cornea – obstructing part of the pupil. Blood vessels have grown towards the sequestrum in an attempt to reject it from the cornea.

How is a corneal sequestrum treated?

There are both medical and surgical treatment options. In some cases, where the sequestrum is small and where the affected eye is not too painful, it can be attempted to support the eye with lubricating and antibiotic eye ointments and the sequestrum may eventually be 'shed' as the blood vessels grow in. If the sequestrum is shed successfully, then the outcome can be very good. This treatment option is however to some degree unpredictable as it is not possible to know in which time frame the 'shedding' of the sequestrum can be achieved.

What are the risks of medical treatment for a corneal sequestrum?

In some patients, it may take weeks or months for a sequestrum to be shed – and it is possible that during this time, the sequestrum may 'grow' larger or deeper within the cornea. Other risks of medical treatment of a sequestrum include:

- Infection
- Rupture (bursting) of the eye
- Severe chronic pain

Surgical treatment of corneal sequestrum

Surgical intervention is a much more predictable option. Under general anaesthesia and with the help of the operating microscope, the sequestrum is cut out. The exact procedure will depend on the depth that the dead tissue extends to, the size of the sequestrum and whether there is infection. If the wound that is left after the sequestrum has been cut out is very deep, then the cornea might need strengthening with a 'graft'. Graft materials include:

- Your cat's own adjacent, healthy cornea (called a corneo-scleral transposition graft or CCT)
- Your cat's own conjunctiva (called a conjunctival graft)
- A foreign graft material that will act as a 'bridge' for corneal healing (collagen or an amnion graft)

Your surgeon may be able to give you an indication of whether a graft will be required for your cat's eye although sometimes that decision can only be made at the time of the operation.

What are the risks of surgical treatment for a corneal sequestrum?

- General anaesthesia risks
- The graft used to patch the wound may become loose or detached altogether
- Infection
- Recurrence of the sequestrum

There is always the possibility that your pet may require a 2nd surgery if the graft fails or the wound does not heal. In rare cases, multiple operations are required to achieve success.

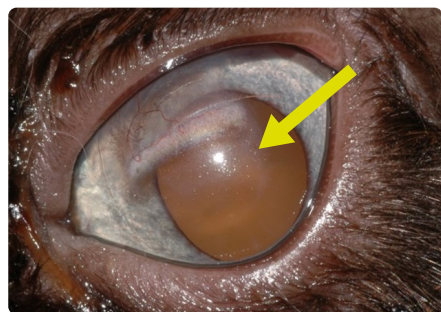
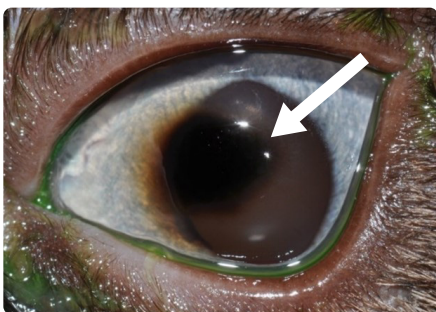
What is the aftercare following surgical removal of a sequestrum?

You cat will need to wear a collar and stay indoors for about 10 days
Antibiotic drops or ointment will need to be applied to the eye
Some medication such as pain killers and antibiotics will need to be given by mouth
Check-ups are usually scheduled at 10 and 30 days

Most patients are pain-free and able to return to a normal life after two weeks.

Will my cat's sight return to normal after surgery?

In most cases, sight is retained in the operated eye although some scarring might remain. This is usually much less than the corneal clouding caused by the sequestrum.



Photos of the left eye of a Persian cat before (above left) and after (above right) surgical removal of a sequestrum (white arrow) and placement of a corneo-scleral transposition graft (yellow arrow). Note the centre of the pupil is quite clear again with minimal remaining pigmentation centrally and the dark line of the limbus' visible.

