



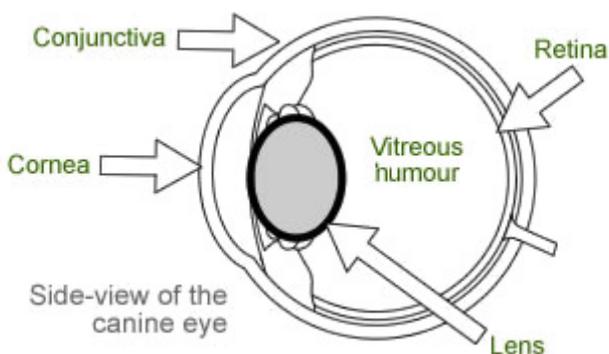
Corneal Ulcers

An explanation of the causes, symptoms and treatment for corneal ulcers

The cornea is the transparent structure at the front of the eye that allows light to enter. Traumatic injury, most commonly a scratch, can damage the cornea and lead to corneal ulceration.

What is a corneal ulcer?

The surface of the cornea is covered by a thin layer called the epithelium, which protects the cornea and keeps it waterproof. An ulcer develops when part of this epithelium becomes scratched, exposing the underlying tissue. The eye becomes painful and cloudy, and the white of the eye may become reddened and inflamed.



Why causes an ulcer to “melt”?

The majority of corneal ulcers will heal rapidly within a few days, as the epithelium regenerates from the edges of the ulcer and spreads across the defect. Some ulcers, however, may progress very quickly – even in a matter of hours. This rapid progression is due to the activity of enzymes which may be released from bacteria, inflammatory cells or corneal cells. The enzymes digest the cornea causing it to become gelatinous and the eye to become very fragile. Melting ulcers are an emergency because they can rapidly lead to rupture and subsequent loss of the eye.

What is the treatment for melting corneal ulcers?

Melting ulcers are treated by medical and/or surgical means depending on the severity of the melt. Usually we will recommend that your pet is hospitalised for treatment. This is so that we can administer the appropriate treatment, monitor the eye carefully and perform surgery if the melt worsens.

Medical management

- Antibiotics: Antibiotic eye drops will be prescribed which initially are applied very frequently e.g. every 30-60 minutes. Antibiotic tablets are also usually administered.
- Anti-collagenases: These are used to inhibit the enzymes responsible for the progression of the ulcer. A number of products may be used but commonly we use serum which is made from the patient's own blood and then directly applied to the eye as drops. Again this is initially used very frequently, every 30-60 minutes.
- Pain relief: Melting ulcers are typically very painful and so pain management is very important. If the patient is hospitalised then we often administer drugs similar to morphine. In addition, anti-inflammatories are also prescribed.

Surgery

For melting ulcers that are deep or progressive, where there is a risk that the eye may rupture, then surgery may be advised. A number of graft procedures may be employed, most commonly conjunctival grafting (pedicle graft, hood graft or 360 degree graft). Surgery requires a general anaesthetic and the use of an operating microscope. The eye will look very reddened and inflamed for some weeks following surgery and it will remain fragile for some time.

What happens after treatment?

We usually keep patients in the hospital for a few days until we have successfully treated the corneal melt. They are sent home on a course of eye drops and tablets. In some cases a second brief anaesthetic is required to remove the graft 4-6 weeks later.

There will always be some degree of scarring following a melting corneal ulcer but this usually reduces over a period months and in most cases the eye regains vision following treatment.

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