

# INDOLENT ULCER

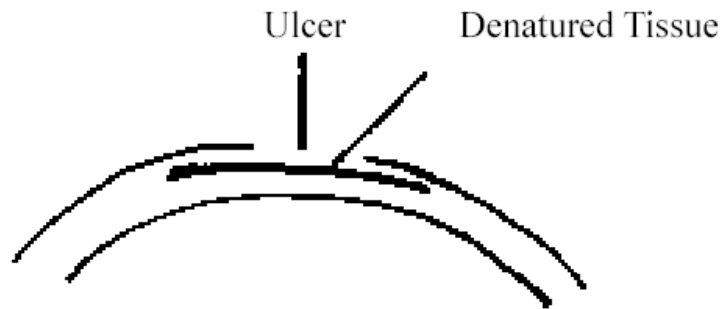
## WHAT IS AN INDOLENT ULCER?

The cornea is the transparent front layer of the eyeball. It is about 1mm thick and consists of several complex layers. An indolent ulcer is a defect in the cornea that is unable to heal due to a layer of denatured tissue on the surface of the eye. The cornea is well supplied with nerves and therefore these ulcers are quite painful.

## WHAT IS THE CAUSE?

Indolent ulcers are most frequently seen in older dogs. The specific cause is unknown. Normally, when there is a defect or ulcer on the surface of the eye, the cells at the outer edges grow into the centre and healing is complete in about 5-7 days. With an indolent ulcer, these cells growing in from the edges are unable to adhere to the surface of the cornea due to an underlying layer of denatured tissue. Imagine laying sod on pavement - if the grass roots could penetrate the pavement to the soil below, it would survive, since it cannot, the grass dies. Since this layer on the cornea is not allowing the healing edges to root down, the ulcer is unable to heal.

Side view of the cornea:

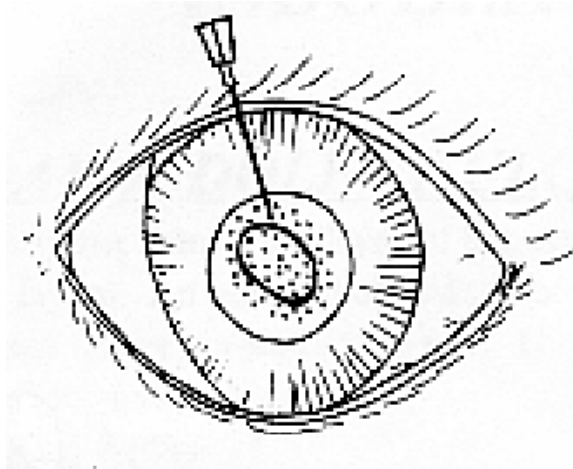


## HOW ARE INDOLENT ULCERS TREATED?

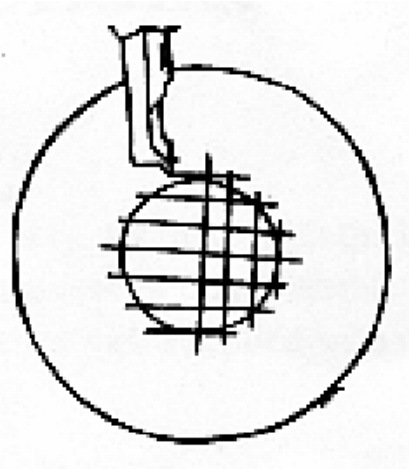
There are two methods of treating indolent ulcers:

### *Striate Keratotomy/Punctate Keratotomy*

A short acting sedative and topical anesthetic drops are required to perform these procedures. The loose “flaps” of healing tissue at the edges of the ulcer are gently scraped away and then a small needle is used to either scratch a grid pattern over the surface of the ulcer (striate keratotomy) or to make small puncture holes (punctate keratotomy) through the dead tissue to the healthy cornea below. After the procedure, a soft contact lens is placed on the eye (to act as a bandage). Your pet will also need to wear a plastic head collar **at all times** until directed otherwise (to prevent rubbing at the eye). The intention of these procedures is to create openings through the denatured layer down to the healthy cornea so the healing edges are able to root themselves down. The success rate with these procedures is about 90%. Therefore, if the ulcer still does not heal, a superficial keratectomy (explained below) will need to be performed.



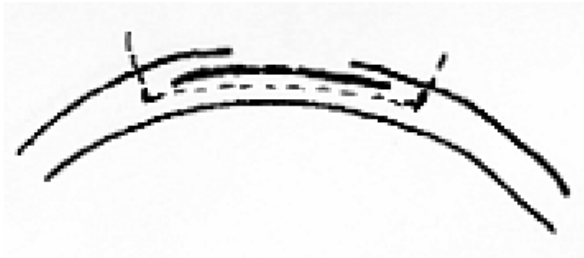
Punctate Keratotomy



Striate Keratotomy

### **Superficial Keratectomy Surgery**

This surgery requires a general anesthetic. Under the operating microscope, a thin layer of cornea is completely removed, including the ulcer and the denatured tissue, leaving only healthy cornea. After surgery, a soft contact lens is placed on the eye (to act as a bandage). Your pet will also need to wear a plastic head collar **at all times** until directed otherwise (to prevent rubbing at the eye). The success rate for this procedure is very good at 99%. Once healing begins, the formation of scar tissue on the cornea is common, this is minimized with a course of anti-inflammatory drops beginning within the first 1-2 weeks after surgery.



### **WHAT WILL I NEED TO DO AT HOME?**

- When using eye drops, be sure the medication is placed directly onto the eyeball. Wait 5 minutes between different drops so as not to flush out the previous medication before it has been absorbed. If you are required to use ointment, always apply it **AFTER** all the drops have been given.
- Keep the head collar on at all times! It only takes a moment for a rubbing paw to do damage.
- Wipe away any discharge from the eye with a clean, moist Kleenex or face cloth.
- Dr. Wolfer will need to recheck your pet 2 weeks after the procedure & then again the following week. Additional recheck appointments may also be necessary, Dr. Wolfer will advise you during your appointment.