

Indolent Corneal Ulcers

Ophthalmology Service



Michigan Veterinary
Specialistssm

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We Can Help

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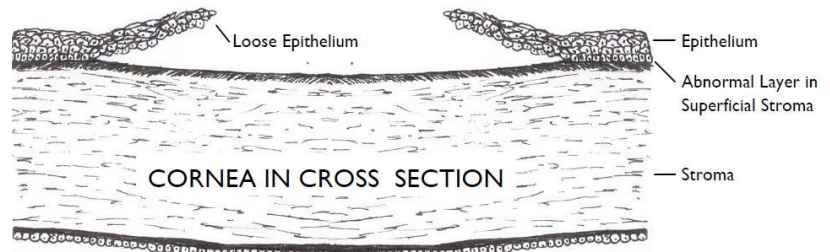
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General Information

This type of ulcer affects **middle-aged** to **older dogs**. Boxers develop this condition more often and may be affected at a younger age than other breeds. Under normal conditions even large superficial ulcerations should heal completely in 5 to 7 days with minimal scarring. Indolent ulcers, however, may take up to six months to a year to heal without treatment. Excessive blood vessel infiltrate and scarring of the cornea may occur when indolent ulcers are allowed to heal without treatment. Scarring may be severe enough to permanently limit vision in the affected eye.

Cause

It is important to first rule out an underlying cause for the ulcer such as trauma, a foreign body under the third eyelid, or abnormal eyelashes (distichia or ectopic cilia). Although the exact reason indolent ulcers occur is unknown, dogs with this condition were found to have an abnormal layer in the superficial (upper) corneal stroma (2nd layer of the cornea). It is thought that this abnormal layer prevents normal adhesion of the epithelium to the stroma below. Simply blinking the eyelids may cause the epithelium to pull away from the abnormal stroma resulting in an ulcer.



Treatment

Several treatment methods exist for indolent ulcers. All treatment methods involve rubbing the loose epithelium off with a **cotton swab** (debridement). Following debridement, most clinicians recommend a procedure to either remove the abnormal layer of the superficial stroma or a procedure to cut through the abnormal layer to give the epithelium specific places where it can stick down. Removal of the abnormal layer of the stroma can be performed with a **diamond burr**, which is similar to a tiny Dremel tool designed for the eye. This procedure treats the entire cornea and may result in less scarring than other treatment methods. Another procedure involves making tiny scratches or pricks through the abnormal stromal layer with a blade or needle (called **grid keratotomy** or **anterior stromal puncture**). By scratching through the abnormal layer the epithelium has specific points where it can stick down.

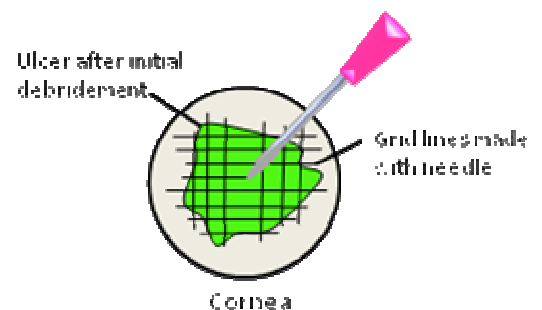
Diamond Burr



Prognosis

Our goal is to stimulate the ulcer to heal quickly both to alleviate discomfort and because shorter healing times may result in less scarring of the cornea and better vision. Surgery typically stimulates the ulcer to heal within 2-3 weeks.

Approximately 50% of dogs that develop an indolent ulcer in one eye will subsequently develop it in the other eye.



Symptoms

- **Increased tearing**
- **Squinting**
- **Frequent Blinking**
- **Corneal haziness**
- **Red eye**