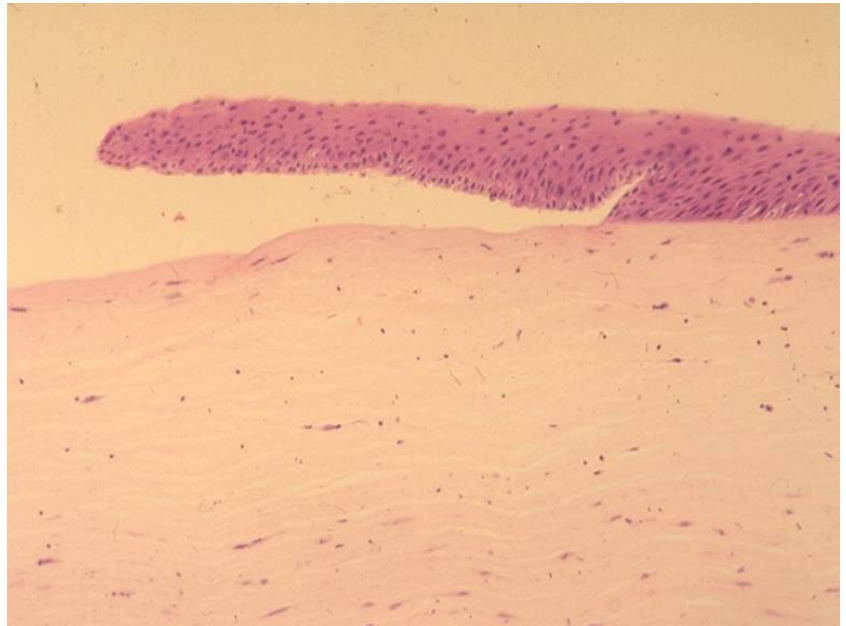




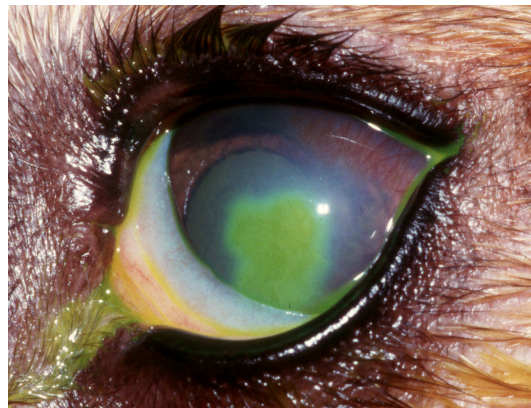
Indolent Corneal Ulcers

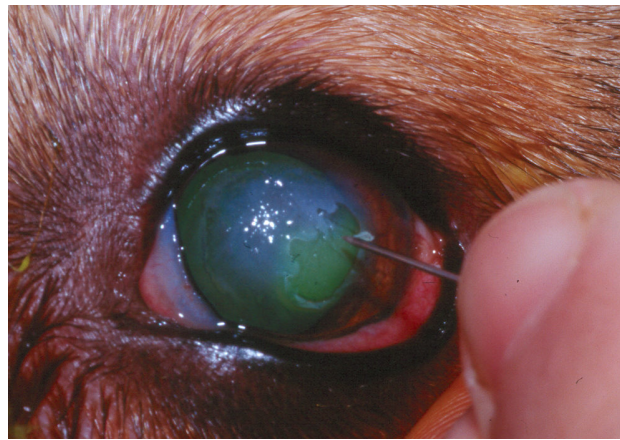
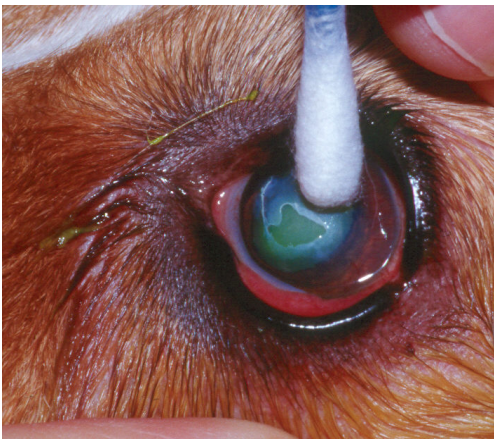
When ulcers heal, the epithelium regenerates rapidly by cell multiplication around the edge of the cornea and sliding of the new cells across the stroma. As the cells slide across they adhere to the underlying stroma by forming small protein bonds which bind them in place. Most superficial corneal ulcers will heal in less than 3 days by this process of cell multiplication and sliding.

Some ulcers, however, become indolent - that is they do not heal. This is generally caused by problems in the adhesion of the new epithelium to the underlying stroma. The poorly adherent epithelium is easily removed by simple trauma - even by blinking. This rubs the new cells off and causes failure of healing. Some breeds, notably Boxers, can be genetically predisposed to these ulcers and in this breed they can arise spontaneously with minimal or no trauma. Any breed, however, can suffer from this type of ulcer, with age and other concurrent corneal disease being possible predisposing factors.



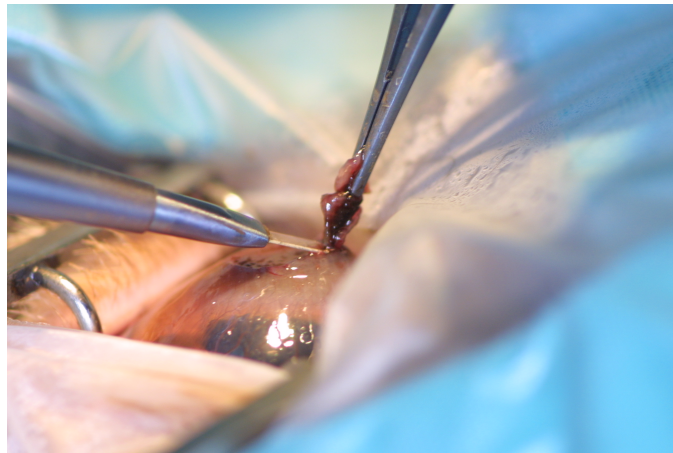
Indolent ulcers can be very stubborn to heal and they generally fail to respond to most commonly used treatments. They require special intervention by using techniques such as





debridement using a cotton bud to remove the loose epithelium, and sometimes other techniques such as a keratotomy using a fine needle to stimulate healing. Sometimes these ulcers will heal using these techniques but they still may be prone to recurrence at a later time. If done incorrectly these procedures can lead to significant scarring so proper assessment by a specialist is recommended.

Many cases are best treated using a microsurgical procedure called a superficial keratectomy, in which all the loose epithelium, plus a very fine 0.1mm thickness layer of the underlying stroma, is delicately removed from the eye using a diamond knife.



This surgery requires intricate instrumentation, microsurgical facilities including an operating microscope, and a high level of training in order to achieve the best results. Superficial keratectomy is highly successful and also reduces the likelihood of recurrence, so it is recommended in cases of stubborn or recurrent ulceration.