



Degenerative keratitis



Keratomalacia (melting cornea)

**Eosinophilic keratoconjunctivitis** describes an infiltration of the feline corneal and/or conjunctival tissues with an eosinophil-rich inflammatory infiltrate. The relationship between herpesviral disease and this process remains unclear. Affected cats display variable cream to white-colored corneal infiltration & “plaque-like” deposition. Treatment comprises topical and/or systemic anti-inflammatory therapy.

The feline corneal **sequestrum** represents a localized region of corneal necrosis. Clinically, corneal sequestrums appear as tan to brown regions which may vary in both size & depth and may or may not be associated with concurrent ulceration. The condition may be unilateral or bilateral. Chronic pre-existing keratitis, corneal ulceration, the performing of inappropriate “grid keratotomies” and/or the presence of FHV-1 as well as breed predispositions are potential contributory factors. The treatment of choice for corneal sequestrums is excision via surgical keratectomy, facilitated by operating microscopy.

**Corneal ulceration** may arise secondary to a multitude of etiologies including conformational abnormalities, tear-film deficiencies (quantitative and/or qualitative), neurological dysfunction, trauma and/or microbial contamination;

**Spontaneous chronic corneal epithelial defects** (SCCEDs or “Boxer” ulcers) likely arise as a result of corneal micro-trauma in association with pre-existing structural &/or physiological corneal abnormalities. Clinically, SCCEDs present as superficial lesions typically surrounded by a rim of poorly adherent epithelial tissue, which is easily under-run by fluorescein creating a “halo” effect following corneal staining. Commonly affected breeds include the Boxer, Boston Terrier & French Bulldog. SCCEDs are treated by physical debridement of both loose superficial epithelial tissue as well as the underlying stromal surface.

Tissue dissolution through the action of enzymatic proteases is a normal part of the healing and remodeling process, however, uncontrolled lysis or “melting” of corneal tissue may result in significant **keratomalacia**. Appropriate topical therapeutic agents include serum, EDTA and/or N-acetyl cysteine. Anti-collagenases should be applied frequently.

**Bacterial keratitis** should be treated using appropriate antimicrobials. Ideally, therapy should be based on cytological interpretation & gram’s staining as well as the subsequent culture & sensitivity testing of microbial samples. In severe cases, or those associated with existing or impending corneal rupture, surgical tectonic corneal grafting procedures may be indicated.

Multiple **neoplastic processes** may affect the corneal tissues including melanocytoma, lymphoma and squamous cell carcinoma. The management of each tumor type is beyond the scope of this brief clinical review however typically encompasses excision where possible in combination with adjunctive radio/chemo therapy where indicated &/or the involvement of a veterinary oncologist. **P**

Dr Esson is a board-certified veterinary ophthalmologist with more than twenty years of clinical experience and multiple areas of interest & expertise. His clinic Veterinary Ophthalmic Consulting ([www.vocsocal.com](http://www.vocsocal.com)) is family owned & operated and he takes great pride & pleasure in working closely with his friends and colleagues in the greater Southern California veterinary community.

