Keeping the Windshield Clean!
Nonulcerative Keratopathies

University of Florida
Dermoid

Congenital tumors
PPM

- Embryologically there is no pupil. A pupillary membrane is present that is supposed to break down.
- Persistence can lead to cornea and lens opacities.
Pannus

- CMI attack on corneal and uveal antigens.
- Worse in young dogs or dogs living at altitude.
- MHC class II expression.
- DDX: KCS, pigmentary keratitis, NGE
- RX steroids, CSA

11 days post treatment
Plasma cell and lymphocyte invasion, followed by melanocytes and histiocytes.

TE can be involved.
Plasmoma
Neurotrophic keratitis

- Lack of corneal sensation
- Brachycephalic dogs and cats
- Diabetics
- Slow healing ulcers
Neuroparalytic Keratitis (Facial Nerve Paralysis)

Idiopathic in Cockers, but can be due to otitis
Bullous Keratopathy - Cats

- Unknown cause.
- Cornea can rupture.
- TE flaps.
Infectious Canine Hepatitis “blue eye”

Post-vaccine reaction (CAV-1).

Endotheliitis resulting in immune-mediated uveitis.

Afghans and greyhounds predisposed.
Tropical Keratopathy or Florida Spots

Florida “Fungus”: Collagen is abnormal
Pigmentary Keratitis

Pugs, Bostons, Pekes, Lhasas.
Chronic low level irritation to the cornea.

Treat cause of irritation if possible.
Rx Topical CSA or Animax
Lipid Keratopathy

• Elevated serum lipids (Dobermans)
• Hypothyroidism
• Diabetics
• Post ulceration
Lipid Keratopathy

“High cholesterol” cricket diets!!

Cholesterol clefts
Sequestra-cats

- Herpes
- KCS
- Entropion
- Post ulcer
- Surgical Therapy
Eosinophilic Keratitis

- Eosinophil invasion of the cornea.
- Looks like SCC.
- Rx: topical corticosteroids first.
- Megestrol acetate in nonresponders.
Corneal Dystrophies

- Purebreeds
- Bilateral
- Epithelial, stromal or endothelial layers affected
- Not associated with inflammation
Corneal Stromal Dystrophy

Puppy Dystrophy

Purebreds; OU; No inflammation; One corneal layer affected.
Stromal Dystrophy

Calcium or lipid deposition
Oval lipid dystrophy of Beagles
Endothelial Dystrophy

Boston Terriers, Chihuahuas
Endothelial Dystrophy

Normal EC

Posterior Collagenous Layer
Corneal transplantation for ED
Thermatokeratoplasty
Corneal tumors

HSA

Melanoma
Epithelial Inclusion Cysts

Trauma, ulcer, foreign body
Nodular Granulomatous Episclerokeratitis
NGE

Collies and others.

Can be diffuse.

Topical and systemic steroids.

Tetracycline/Niacinamide 250-500 mg each PO TID.
KCS

- Cyclosporine A has radically improved our ability to treat KCS in dogs.
- Pilocarpine orally used in CSA nonresponders.
- Tacrolimus 0.03%
Corneal Burns

Lasers
Corneal Foreign Bodies

- Do not just pull them out!
Insect keratitis

Fire Ant Keratitis
Walking Stick keratitis: chemical spray
Corneal Degeneration

Post-disease

Scarring and vascularization
TE Flap

Tarsorrhaphy