Adnexa Lectures

Disorder	Distichiasis	Ectopic cilia	Trichiasis
Clinical Signs	Fine hairs emerging from eyelid margin Usually does NOT cause disease	8-12 months of age Marked blepharospasm, epiphora Vertically linear superficial corneal ulcer Raised papilla (12 o'clock position in upper eyelid)	Periocular hair touching ocular surface Medial canthus, nasal folds Usually do not cause irritation Often "wick" tears onto face
Cause	Inherited Developmental	Inherited/Developmental Cilium from meibomian gland Cilium protrudes through palpebral conjunctiva **12 o'clock position upper lid** **Vertical or circular ulcer**	Breed related Conformational Hair from normal site in contact with ocular surface Frequent in: brachycephalics, yorkies, poodles, breeds with long facial hair
Diagnosis	Signalment (breed) Clinical signs	Signalment History Clinical Signs Finding the cilium	Signalment Clinical signs
Treatment	Manual epilation initially to confirm diagnosis Cryotherapy	**Excision and cryotherapy** You need to excise the hair follicle in its entirety	Usually not indicated Cryotherapy Lid surgery

Disorder	Entropion	Chronic Epiphora Syndrome	Ectropion
Description	Rolling in of eyelid margin -Congenital -Spastic -Cicatricial *Most common in dogs, occasionally cats	Breed disposition Chihuahuas, Poodles, Brachycephalics Underlying problem is a medial entropion of the lower eyelid Malposition of the lacrimal puncta, crimping canaliculus Trichiasis>irritation>increased tearing	Majority dog breeds related to Cocker spaniels Bloodhounds Giant breeds Age-related Older dogs
Clinical Signs	Midsized and large dogs Lateral aspect of lower lid	Chronic tear staining from medial canthus	Loss of contact of lower lid with eye

	Margin not in contact with ocular surface Blepharospasm Epiphora, wetness along lower lateral eyelid margin	Secondary moist dermatitis (brachycephalics)	Blepharospasm Epiphora Corneal vessels Corneal melanosis and ulceration
Repercussions	Corneal ulceration, vessels, melanosis, especially ventrolaterally	Smelly and cosmetic distress for O	Leads to secondary corneal problems
Causes	Inherited (dogs) Spastic +/- Cicatricial (scar tissue cats) Fat deposition (pigs)	Entropion of medial aspect of lower eyelid Breed related	Inherited Age (loss of ocularis oculi muscle tone)
Diagnosis	Signalment Clinical Signs	Signalment Clinical Signs	Signalment Clinical signs
Treatment	Depends on the breed, severity and age <u>Adolescents <1yr</u> Lubrication Tacking (staples, suture) <u>Adults >1yr</u> Surgical Repair (Hotz-Celsus)	Unrewarding treatment Mostly use medical management	Often not necessary Lubrication ointments Antibiotic or steroid ointments Wedge resection
Additional Info	Shar Pei signs Inability to see eyelid margins Marked conjunctival hyperemia and chemosis Corneal vessels and melanosis		

Neoplasia

Neoplasia	Meibomian Gland Tumor *Canine	Squamous Cell Carcinoma *Feline
Clinical Signs	Papilloma-like projection from eyelid margin Swelling of affected gland Upper lid is more common (can fragment and regrow) Variable size Blepharospasm if ulcer is present Metastasis is very rare	Ulcerative lesion Lower lid White or lightly pigmented Metastasis late

Cause	Age-related	Lack of eyelid pigmentation UV exposure
Diagnosis	Signalment (age) Clinical signs Can confirm with biopsy	Clinical signs Cytology (eyelid scraping) Biopsy
Treatment	Curettage and cryotherapy (local block) Wedge resection (requires sx/anesthesia)	Radiation most effective (Sr90) Surgical excision Cryotherapy

Miscellaneous

Eyelid Traumatic Injuries

Treatment:

Minimal debridement (only if necrotic)

Two-layer closure for lacerations (orbicularis oculi muscle = holding layer; skin = careful alignment of margins)

Identification, reconstruction inferior NL system

Systemic, topical antibiotics

Eyelid: Bacterial Blepharitis

Staphylococcus and *Streptococcus* spp **Staphylococcus* toxins exacerbate

Clinical Signs: Severe eyelid swelling, blepharospasm, excoriation, alopecia, mucopurulent discharge, granuloma formation, bilateral *dogs, recurrent *dogs

Causes: Infection from ascending bacteria, fight wounds

Diagnosis: Clinical signs, biopsy, culture and sensitivity

Treatment: Topical abx/steroids, oral abx, oral prednisone, warm compress

Eyelid: Chalazion *Stye in humans*

Clinical Signs: Nodular swelling within lid, no inflammation, NO pain, yellow/white appearance through palpebral conjunctiva

Cause: Obstruction of meibomian duct, age-related (older dogs)

Diagnosis: Clinical signs, differentiate from neoplasia

Treatment: Curettage of gland, topical antibiotic/steroid *a warm compress and time is usually enough and the other treatment options are not needed

Eyelid: Agenesis (Feline)

Clinical Signs: Absence of lateral ½ to 2/3 upper eyelid, trichiasis, always bilateral but not always symmetric, may have exposure keratitis, may have other developmental abnormalities

Cause: Heritable or developmental

Developmental: Clinical signs and signalment

Treatment: Topical ointments, cryotherapy, blepharoplastic procedures, *there are about 20^{+} procedures for this and none are perfect (lip to lid procedure)

Neonatal Ophthalmia

Ankyloblepharon is normal in cats and dogs 10-14 days after birth, this condition is caused by an infection under the eyelids before opening. *Staphylococcus* and *Streptococcus* along with feline herpesvirus are the common culprits

Clinical Signs: Inflamed, distended eyelids, purulent discharge, conjunctival hyperemia, chemosis, +/- corneal ulceration

Cause: Infection

Diagnosis: Signalment and clinical signs

Treatment: Open lids, digital manipulation, blunt probe, flush with dilute Betadine **solution (NOT SCRUB)**, topical abx