

# Ten Tenets of Feline Ophthalmology

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The definition of a tenet is “an opinion, doctrine or principle held as being true by a person or especially by an organization”. In the case of this lecture, the tenets are mine. Some I learned at my mentor’s knee back in the dark ages and some have evolved after three decades in private practice. Keeping these tenets in mind will help you avoid many complications and lead to a more timely diagnosis and effective treatment regime.

## **Tenet number one: All cats have herpes**

Although a slight over-statement, working under this premise will lead to the correct diagnosis and treatment of the vast majority of superficial ulcers in cats. In fact, statistics have shown that 80% of all affected cats become carriers and 50% spontaneously shed virus.

There are three factors that make this such a common cause of ocular disease in cats of any age. First, the high incidence in cat populations; second, treatment does not eliminate the virus from the cat; and third, stress from any number of causes both physical and emotional results in relapse or recrudescence of a latent infection.

Corneal ulcer in a cat? Think herpes!

## **Tenet number two: Cats do not have a primary anterior uveitis**

“Lymphoplasmacytic anterior uveitis, etiology unknown” is a common pathological diagnosis. It is well documented that both Bartonella and Toxoplasma are known to cause this type of inflammatory response. You should always search for an exogenous etiology even though 50% to 70% of the time your efforts are in vain.

## **Tenet number three: The measurement of IOP is the most sensitive and important procedure in diagnosing, prognosing and treating anterior Uveitis**

Demonstrating a decrease IOP may be the earliest sign of anterior uveitis. An elevated IOP in the face of additional signs such as aqueous flare may change your initial therapy and prognosis. Observing a rise in IOP beyond normal as you treat would indicate a secondary glaucoma and necessitates a change in treatment and prognosis.

## **Tenet number four: Bartonella induced anterior uveitis does exist**

A young cat with acute unilateral or bilateral anterior uveitis, without posterior segment involvement is a prime candidate for bartonellosis. Start doxycycline and submit a serology sample and an EnrichmentPCR™ test to Galaxy Diagnostics, Inc. Chances are the cat will improve significantly before you receive your lab results!

## **Tenet number five: There is no test to diagnose feline herpetic keratitis or feline bartonellosis**

The microbe for both is prevalent in clinically normal cats. The diagnosis is made based on clinical signs and history, ruling out other possible etiologies, clinical experience and response to appropriate therapy. Laboratory testing only confirms the presence of the etiological microbe.

## **Tenet number six: Avoid topical medication in primary conjunctivitis**

Mycoplasma felis, Chlamydomydia felis, and Bartonella henselae are all susceptible to doxycycline (10 mg/kg q.d. to b.i.d.) or Clavamox® (12.5 mg/kg b.i.d.) If there is no improvement in five to seven days, think FHV-1.

## **Tenet number seven: Drug reaction are common**

Be aware of adverse reaction to ophthalmic drugs. Cats can have a reaction to Terramycin®, neomycin, atropine and any and all topical antiviral drugs. This is manifested by blepharospasms, conjunctivitis and blepharitis (lid depigmentation, erosions and swelling).

Atropine topically can cause not only severe blepharoconjunctivitis in the treated eye, but can also cause severe systemic effects. Decreased tear production in both eyes as a result of topical treatment is not uncommon. One drop of 1% atropine delivers .5mg! I use 1% atropine ointment no more than once daily. Applied in the lateral inferior cul-de-sac reduces hypersalivation immediately following treatment.

(p.s. Tell client to wash their hands after applying it to their cat. Small amount can cause mydriasis for over one week.)

There are other drugs, including lacrimomimetics and anti-glaucoma, that have the potential to cause local irritation.

**Tenet number eight: Antibiotic use and misuse**

Veterinarians have a tendency to dispense antibiotics for every ophthalmic disease they see! In many cases, they are of no value for the condition and in some cases, they may actually be contraindicated. The following are cases I have seen where this misuse occurred.

**Superficial ulcers**

- Oral or topical antibiotics are not indicated in cats with superficial ulcers. Think herpes!

**Anterior uveitis**

- Oral and topical antibiotics are not indicated with anterior uveitis unless a specific microbial etiology is suspected such as Bartonella or a tick-borne disease. In this case, a specific oral antibiotic may be indicated; however topical antibiotics are of no value.

**Adnexal disease**

- Oral antibiotics may be indicated for adnexal disease if a secondary infection plays a part such as a staphylococcus blepharitis. They are not indicated in entropion.

**Deep stromal ulcers**

- Oral and topical antibiotic may be indicated in deep stromal ulcerations or keratomalacia.

**Glaucoma**

- Neither oral nor topical antibiotics are indicated unless the glaucoma is secondary to a presumed infection.

**Tenet number nine: Up to 98% of glaucomas are secondary**

Miotics such as pilocarpine, demacarium bromide and latanoprost are not only ineffective, but can be contraindicated. Carbonic anhydrase inhibitors have not proven to be effective in early cases of secondary glaucoma.

**Tenet number ten: Systemic hypertension is the most common cause of intraocular hemorrhage**

Systemic hypertension is a leading cause of anterior uveitis, secondary glaucoma and blindness due to retinal disease. These can all be prevented through routine ophthalmoscopic examinations.