



**VETERINARY VOICE:  
Tips of the Trade**

**Ophthalmology- Phacoemulsification**

**What is phacoemulsification?** Phacoemulsification is the removal of a cataractous lens using ultrasonic energy via a small incision. This technique has been extensively developed since the 1960s in humans. It started being used in the late 1970s by veterinary ophthalmologists. It is now the accepted method of choice for cataract surgery in veterinary ophthalmology.

**What are the goals of pre-operative therapy for cataract surgery?** The most important aspect of therapy to prepare for phacoemulsification is control of inflammation. This can be accomplished through use of topical ophthalmic flurbiprofen, prednisolone acetate, or neo poly dexamethasone depending on the degree of inflammation present in the eye. Systemic use of NSAIDS is also commonly recommended.

**Pre-operative testing?** An electroretinogram and ocular ultrasound are performed prior to scheduling phacoemulsification in order to ensure proper retinal function and absence of retinal detachments.

**Are intraocular lenses always placed following lens removal?** We always attempt to place intraocular lenses (IOLs) following phacoemulsification because the visual outcome is much better with the addition of a lens. The pet is able to focus on objects near and far away. Foldable IOLs are now available. These lenses can be placed through a smaller incision which allows for quicker healing and less astigmatism of the cornea which translates into less discomfort and better vision for the pet. Complications that may prohibit intraocular lens implantation are posterior capsular tears or lens subluxations >180 degrees.

**Complications following cataract surgery?** Complications following cataract surgery are rare, but the most commonly seen complications include a transient increase in intraocular pressure (72 hours), uveitis, or glaucoma. Corneal ulcers, corneal edema, retinal detachments, and hyphema, or intraocular infections are seen infrequently. Because cataract surgery is an elective procedure, these possible complications are discussed with clients when they present their pets for initial consult.

**Post-operative care?** Client compliance is essential. The owner must be willing to keep an Elizabethan collar in place for 2 weeks, keep the pet quiet and calm for 4 weeks, and bring the pet back for recheck examinations to make sure there are no complications following surgery. Ophthalmic and oral medications are used in the initial post-operative period.

**Questions?** The Veterinary Specialty Center of Tucson has a board-certified ophthalmologist available for questions and consultations on ophthalmic diseases and surgeries during the weekdays. She is on call to provide consultations to VSCT emergency doctors and to perform emergency procedures for patients seen by the VSCT emergency service. Board-certified ophthalmologists have four additional years of training after veterinary school and are certified by the American College of Veterinary Ophthalmologists' to assure competency in advanced veterinary ophthalmology.

**Ophthalmology Expert:  
Caroline Betbeze,  
DVM, MS, DACVO**