Information For Our Clients

Glaucoma and Glaucoma Treatment

Introduction

Maintenance of normal pressure within the eye depends on a delicate balance between production and drainage of internal eye fluid (aqueous humor). In canine and feline glaucoma, the problem lies in aqueous humor outflow being obstructed. As the fluid accumulates, the pressure inside the eye rises to dangerous levels, causing pain as well as damage to the retina and optic nerve.

Glaucoma can be caused by a number of different factors. In most dogs it is an inherited condition. Some canine breeds predisposed include Arctic breeds (Samoyed and Husky), Basset Hound, Cocker Spaniel, Beagle, Chow Chow, and Sharpei. Instability of the lens and lens disorders such as cataracts can also cause glaucoma, as can inflammatory conditions, retinal detachment, tumors and cancer.

The timeline for the development and progression of the signs and symptoms of glaucoma varies between dogs. You may first notice redness around the eye, tearing, squinting, as well as a decreased appetite and activity level. With time, the eye will turn cloudy and appear larger or bulging. As the disease progresses, vision loss and pain occur.

How do we diagnose and treat glaucoma?

During your first appointment, a complete, detailed ophthalmic examination will be performed to determine the status of your pet’s vision, the stage of glaucoma, and whether any permanent damage has resulted from the glaucoma. Intraocular pressures will be taken and specific options for management of your pet’s glaucoma will be discussed with you.

• Glaucoma cannot be cured; but it often can be controlled for some period of time if treated properly.

Medications, in the form of eye drops or pills, are the typical first line of treatment. The length of time that medications can be used to control glaucoma varies between patients. When medications begin to fail, or in cases considered at high risk for acute vision loss from their glaucoma, laser surgery is recommended.

Advanced surgical technique

Endocyclophotocoagulation (ECPC) is the newest laser surgical technique for glaucoma. ECPC is a technique only offered for patients with vision that involves the destruction of the ciliary processes that produce aqueous humor. The ciliary processes are destroyed with a strong beam of light using an endoscopic tool in an attempt to reduce the fluid production in the eye. The benefits of this procedure include direct visualization of the ciliary body, eliminating destruction of surrounding tissues. ECPC carries a high success rate (85%) of controlling intraocular pressure for at least one year, the highest success rate of all glaucoma surgical procedures created to date. A complete evaluation by one of our ophthalmologists is required to determine if your pet’s success rate might be higher or lower.

What are the potential complications of ECPC?

Complications directly related to the surgery, although very uncommon, include anesthetic death, hemorrhage, infection, incisional dehiscence, and retinal detachment. The ophthalmologist will discuss any short and long term potential complications with you before and after the surgery. Follow-up appointments and administration of medications as recommended are extremely important to help minimize risks of complications, and to maintain control of glaucoma and sight as long as possible.
Glaucoma continued

What can I expect after surgery?

Patients are hospitalized for at least three nights after ECPC surgery for close postoperative monitoring of eye pressures, as it can take up to 7 days for the full effects of the laser treatment to be seen. Dogs are sent home with an Elizabethan collar to prevent them from rubbing the eye.

Home care after surgery involves applying eye drops four to six times a day for a few weeks, and then slowly decreasing the frequency of medications over time, depending on your pet’s response to surgery. Patients typically remain on some level of medication lifelong, even after surgery. Normal activity may resume after two weeks.

The frequency of follow-up appointments will be based upon your pet’s needs. These appointments are extremely important to maintain sight and controlled intraocular pressures for as long as possible.

IMPORTANT FACTS

- Glaucoma is a much more aggressive and blinding disease in animals compared to people.

- The most common cause of glaucoma is inherited disease.

- If inherited glaucoma occurs in one eye, there is a 50% chance that the other eye will develop glaucoma within 12-18 months. The other eye should be closely monitored by an ophthalmologist to look for very early signs of pressure elevation to maintain vision as long as possible.

- There is no cure for glaucoma, only control of the disease with medical and surgical treatments.

- Medication for glaucoma is lifelong.

- Permanent blindness may occur WITHIN HOURS if increased intraocular pressure is maintained. If you suspect your pet is experiencing high pressure, please contact us or our emergency department immediately.

- Glaucoma surgery may prolong intraocular pressure control and sight, but it is not a cure for glaucoma.

What Does it Mean to be Specialized in Veterinary Ophthalmology?

An ophthalmologist specializes in the diagnosis and treatment of conditions involving the eyes and associated structures. The veterinary ophthalmologists at MedVet have dedicated their practice to protecting and preserving sight in all animal species including dogs, cats, horses, birds, exotic and zoo animals.

Highly specialized equipment, identical to that used by your own ophthalmologist, is used by veterinary ophthalmologists for examination and treatment of your pet. Our operating rooms are also equally equipped to handle the very specific needs of eye surgery including operating microscopes and microsurgical instrumentation and equipment.

A board-certified veterinary ophthalmologist is a Diplomate of the American College of Veterinary Ophthalmologists (ACVO). There are just over 300 actively practicing members of the ACVO in North America. In order to become a Diplomate of the ACVO, one must complete a 1-year internship and a 3-year ophthalmology residency after graduation from veterinary school. These residencies are very rigorous and highly competitive. After successful completion of the residency, the veterinarian may be eligible to sit for the board examinations. If the candidate passes all four parts of the examination, he or she becomes a Diplomate of the American College of Veterinary Ophthalmologists.