

In the Blink of an Eye

Glaucoma blinds before most owners even notice a problem, but gene therapy offers hope.

Jo Rossman

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Not all veterinarians agree with such preventive screening, but Dr. Nicole MacLaren, a veterinary ophthalmologist at the Eye Clinic for Animals in Salt Lake City, Utah, goes further. Owners with a purebred dog of an at-risk breed should seek a gonioscopy when the dog is 6 months or older, she said. This procedure uses a contact lens, usually applied after numbing the eye with an anesthetic, to evaluate the drainage angle.

If you notice any potential signs of glaucoma, take your dog to your veterinarian immediately. "Pressure can go up and begin to cause permanent damage quickly," Dr. Knudson said. If the diagnosis is glaucoma, have your veterinarian refer you to a board-certified specialist to further evaluate the animal and discuss treatment options.

Keep your general veterinarian in the loop, as he or she may be involved in post-care, especially if your specialist is not close by, Dr. Gelatt said. For the minority of cases in which another eye condition causes glaucoma, treating the other condition may cause the glaucoma to disappear if it's not too advanced. But an accurate diagnosis is critical because primary glaucoma can cause lens luxation and vice versa, making it hard to distinguish which came first and the confusion can result in unnecessary surgery that exacerbates the glaucoma. Several drugs and surgical treatments are available for other glaucomas depending on the eye's drainage angle, pressure level and degree of vision loss. Preventive treatments may be performed in the "good" eye. A recent University of Wisconsin-Madison study found medication to reduce pressure, suppress fluid production and aid drainage can delay the onset of glaucoma in the companion eye of dogs with glaucoma in one eye for about 30 months.

But medication alone will not resolve glaucoma problems in most dogs, so veterinarians sometimes use surgical techniques to try to maintain whatever vision the dog has. Laser surgery can reduce or halt fluid production by killing some of the fluid-producing cells. Shunts - small plastic tubes inserted in the eye provide alternative drainage. Cryosurgery - a noninvasive freezing technique also decreases fluid production by killing fluid-producing cells.

But in most cases, vision eventually will be lost. "We don't have a silver bullet yet," Dr. Gelatt said. "Laser surgery and shunts are the most common in America, and neither is perfect."