

Progressive Retinal Degeneration (PRA, gPRA)

The symptom of this disease is a slowly deterioration of vision, which typically starts with poor night vision. Most owners will present with a history of reduced vision inside the house at night or reluctance to go for the “evening walk”. Some dogs may even be reluctant to move in unfamiliar surroundings in dim light.

The main symptoms during the clinical examination include:

- Dilated pupils in bright light
- Poor and incomplete responses of the pupils to bright light

In most dogs the changes in the back of the eye (retina) may be appreciated by ophthalmoscopic examination and include:

- Increased reflectivity in the back of the eye (thinning of the retina)
- Fewer and thinner blood vessels in the retina (due to advanced retinal degeneration)
- Grey or dark optic nerve (optic nerve atrophy due to retinal degeneration)

The types of progressive retinal degeneration include 1) a number of known genetic mutations, 2) unknown genetic mutation with known inheritance patterns and 3) sporadic retinal degeneration of unknown mode of inheritance.

The most common type of retinal degeneration is GPRA/PRCD seen in the Miniature Poodle, Toy Poodle, Labrador Retriever Dog and Golden Retriever Dog. This type of retinal degeneration is an autosomal inherited gene defect, and the defective gene must be passed on to the animal from both eyes sire and dam. Thus two clinical normal dogs may produce an affected dog.

In some dogs a cataract develops secondary to chemicals released from the degenerating retina. This type of cataract may prevent clinical/ophthalmoscopic confirmation of the retinal degeneration.

An ElectroRetinoGram (ERG) may be used by the veterinary ophthalmologist to determine how well the retina is working. An ERG is indicated in patients suspected of retinal degeneration, where the cataract prevents ophthalmoscopic evaluation of the retina.

There is currently no treatment proven to be affective for retinal degeneration in animals.