

Progressive Retinal Atrophy (PRA) in Dogs

What is Progressive Retinal Atrophy (PRA)?

Progressive Retinal Atrophy (PRA) is a group of inherited eye diseases that affect the retina (the lightsensitive tissue at the back of the eye). With PRA, the retina gradually deteriorates over time, leading to progressive loss of vision. It is a genetic condition, meaning it is passed down from parent to offspring, and can affect dogs of all breeds, though certain pedigree breeds are more commonly affected.

As PRA progresses, it causes night blindness (difficulty seeing in dim light), and eventually, total blindness. The condition typically develops slowly, often beginning in middle age, but in some breeds it presents younger and the rate of progression can vary considerably.

Signs of PRA in Dogs

The signs of PRA can be subtle at first, as dogs rely on their other senses, especially smell, to navigate their environment. Common signs include:

- Night blindness: Difficulty seeing in low-light or dark conditions.
- Changes in behaviour: A dog with PRA may seem hesitant or anxious in unfamiliar environments or when walking outside.
- Deterioration in vision: Over time, your dog may have trouble finding familiar objects or lose interest in visual activities, such as fetching a ball. The may may start bumping into things.
- In the later stages of PRA, total blindness may occur. However, many dogs with PRA adapt well to their loss of vision, relying on other senses like hearing and smell.



Diagnosis of PRA

If you notice signs of vision changes in your dog, it's important to consult with your vet, who will probably refer you to a veterinary ophthalmologist. They will perform a complete eye exam, looking for changes in the retina or the appearance of blood vessels. There may also be secondary complications such as cataracts.

Electroretinogram (ERG): This test measures the electrical activity in the retina in response to light. It usually isn't required for diagnosis, but is available.

Genetic testing: In some breeds, genetic testing is available to confirm if a dog carries the PRA gene, even before symptoms appear. This can be helpful in breeding decisions or to monitor at-risk dogs.

Treatment Options

Currently, there is no cure for PRA, and treatment focuses on managing the condition and helping your dog adapt to vision loss, potentially adding a retinal supplement while your dog still has some vision.

Retinae (see https://drvet.pet/en/retinae-2/) is a therapeutic treatment designed to support the management of retinal conditions specifically in dogs. Retinae is composed of active ingredients such as lutein and zeaxanthin, Omega-3 fatty acids, as well as minerals and vitamins with antioxidant effects, which help reduce retinal damage due to oxidative stress.

While Retinae is not a cure for retinal diseases, it may help manage symptoms, slow disease progression, and improve the quality of life for dogs affected by retinal conditions. It is stopped when full blindness develops.

Management strategies include:

Safe environment: Make sure your home is free from obstacles that could cause your dog to bump into or trip over. Keep furniture in the same place to reduce confusion.

Routine and predictability: Keeping a consistent routine can help your dog feel more comfortable and navigate better in their environment.

Training and assistance: Many dogs with PRA learn to adapt by relying on their other senses. Positive reinforcement training can help your dog become more confident in navigating without sight. Play interactive games that don't rely on sight, such as hide-and-seek with their favorite toy or food, to stimulate their senses.

Veterinary Support: While PRA is not treatable, regular veterinary check-ups are important to monitor the condition and ensure your dog's overall eye health. Additionally, your vet can help manage any complications, such as cataracts, that may arise as a result of PRA.

Prognosis

PRA is a progressive condition, so your dog's vision will decline over time. However, many dogs with PRA live happy, fulfilling lives, adapting to their blindness by relying on their sense of smell, hearing, and other environmental cues. It's important to note that although PRA leads to total blindness, dogs with PRA do not usually experience painful complications.

Prevention and Breeding Considerations

As PRA is an inherited condition. If your dog has been diagnosed with PRA, it's important not to breed from your dog, or to perform genetic testing if you are thinking of breeding.

Summary

Progressive Retinal Atrophy is a genetic condition that leads to blindness in dogs, but with proper care and adaptation, dogs can continue to live happy lives.