

SARDs

Sudden Acquired Retinal Degeneration

PRA

Progressive Retinal Degeneration

What is the retina?

The retina is a thin layer of tissue at the back of the eye which contains millions of light sensitive cells (photoreceptors) along with a variety of nerve cells (See diagram above).

Its role is to receive the light which has passed through the front of the eye and to convert this light in to signals to be sent to the brain for interpretation.

The retina has two main photoreceptors:

Rods:

These cells allow your pet to see in dim light conditions

Cones:

These cells are active with bright light and allow for colour vision

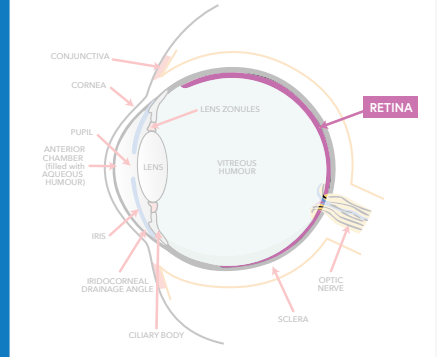
What is SARDs?

SARDs stands for Sudden Acquired Retinal Degeneration syndrome and is characterised by sudden and irreversible blindness. There is no particularly predisposed breed and the blindness may occur in a few days. SARDs is currently only seen in dogs however it may be present in other members of the animal kingdom which have not been recorded.

What is PRA?

Progressive Retinal Atrophy (PRA) is a group of genetic diseases which progress to complete blindness due to loss of function of the photoreceptors. The disease has been described in many breeds and a complete list may be found on www.bva.co.uk

Diagram of the eye and intraocular structures.



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How can SARDs be diagnosed?

In the early stages of the disease the retina looks normal on examination, even though it is no longer working. Therefore, further tests are needed to provide diagnosis.

Is there any treatment for SARDs?

Although SARDs is still under investigation, there is currently no treatment for this disease and it is unfortunately irreversible. This disease is not painful and a dog can still have a very high quality of life even though they are blind.

How is PRA diagnosed?

Clinical signs include poor vision in dim light conditions, with good vision in bright light conditions. Your pet may become more hesitant and reluctant to go outside at night, but is still bright and happy when out during the day. With time, the disease progresses and may lead to complete blindness. Both eyes are equally affected but sometimes they may show changes at different stages.

Genetic tests are available and are useful tools to identify dogs carrying the PRA gene, as the transmission of the gene is autosomal recessive (this means that a dog needs two copies of the faulty gene to show the disease). This does not mean that a dog who tested negative cannot have a form of PRA – it may just mean that these genes have not yet been identified. Genetic tests are useful for predisposed breeds and/or breeding individuals.

Is there any treatment for PRA?

Unfortunately, there is no treatment available but the disease is still under investigation. PRA is not painful and most of the dogs will adapt to the situation quite well, having a good to excellent quality of life.

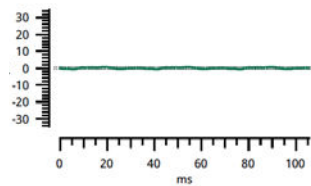


What tests help with diagnosis?

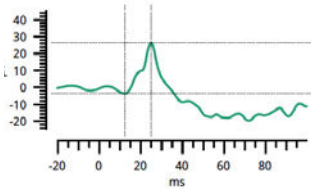
Chromatic PLR test, which involves shining different coloured lights of different intensities into the eyes can be performed to assess visual response during a consultation and may give some information to support the diagnosis of both conditions.

The gold standard for diagnosing retinal diseases is to perform an electroretinography (ERG). This consists of measuring the electrical activity of the retina following light stimulation. The advanced electroretinographic unit at Eye-vet can be used in conscious and cooperative patients, although sedation is often needed to perform the full examination.

ERG 'Flatline'



ERG 'Normal'



Advice on caring for a blind dog

Caring for a blind dog may seem daunting, however your dog will respond incredibly well.

Their other senses will become more dependent and they will use smell, hearing and memory to navigate familiar environments. Dogs often only need some support from the owner during the early period of blindness.

It is advisable to keep all furniture in the house in the same place and do not move any familiar items such as their food/water bowls and beds. Your dog will remember his/her environment from before they become blind and you will be amazed at what they can remember.

Begin to teach your dog 'help' words like 'stop', 'step up', 'step down', 'left', 'right', 'danger' etc. Consider using toys which make a noise, or cover any of their favourite toys in a familiar scent so they can always find it.