

Don't panic - 'PRA' in the Dachshund

by Ruth Lockett-Walters

FOR MANY years we have been aware that there was a problem with premature blindness in the Miniature Longhaired variety of Dachshund, and consequently all reputable breeders went to the effort of eye testing through the Kennel Club/British Veterinary Association and similar schemes to try to keep control of the problem.

After many years of research and test matings, the Animal Health Trust eventually discovered a DNA test which enabled us to identify the clears, carriers and affected animals. The Min Long breeders were eager for help and soaked up all the information like a dry sponge, and from then on quickly got to work to try to eradicate this inherited problem from the breed.

Very recently the AHT has discovered that the Miniature Smooths carry the same gene which came as somewhat of a shock, as the Min Smooth breeders were not aware that they had a problem – there had been no regular reports of animals going blind. Furthermore, the AHT has had recent reports from Norway that the Wirehaired variety is now affected.

At every stage of the research, thanks to the knowledge given to us by the AHT and through the organisation of various breed club seminars, we manage to learn that little bit more and it now transpires that the eye condition is not precisely progressive retinal atrophy (PRA) – I gather all degenerative retinal conditions for the sake of convenience come under this umbrella, and are referred to as PRA.

Cones and rods

The exact condition that the Dachshund suffers from is cone rod dystrophy, whereas true PRA is rod cone degeneration. The dog's eye is made up of cones and rods – the cones are in control of the clarity, peripheral and colour vision, and the rods cover the distance vision. This condition for the sake of the DNA test is referred to as the *cord1* mutation.

A dog who has two copies of the normal gene is a CLEAR and will never develop PRA or pass on the mutation to any of its offspring.

An animal carrying one copy of the gene is referred to as a CARRIER; it will never itself go blind but is capable of passing on the gene to some of its offspring.

An animal that has two copies of the gene is AFFECTED. An affected animal can either go blind at an early age (nine to 15 months of age) but in the majority the sight deterioration is late onset, and there are some never do

actually go blind although their DNA is that of affected.

Regarding the owners, many are adamant that as it is not the full blown total blindness, all this is a fuss about nothing, but if we look at this in sensible terms it is of the utmost importance that however we wish to interpret the naming of the eye condition it is an inherited gene and the matter needs to be addressed...

How the condition affects the dog is not the onset of night blindness as in normal PRA, but the loss of peripheral and colour vision. If you are lucky, although it is unlikely, the rods that cover the distance vision might remain unchanged, but the norm is that this too deteriorates.

I understand that many are arguing that a lot of dogs still retain their sight, albeit limited. However my logic tells me what is the point in owning a dog who can see a rabbit 100 yards away when they cannot see the sofa to the left of them or the coffee table to the right.

Addressing the problem

This is a breed whose lifestyle is that of the family pet and only a few go out hunting – under the circumstances, this is definitely not an issue where one can stick one's head in the sand and hope it will go away, or to take the attitude, "it's not so bad as it sounds". The problem must be addressed...

To do this, all responsible breeders need to DNA-test all their breeding stock and be careful with their breeding programme. The ideal mating would be a clear to a clear, but you must not forget breeding to type and for compatibility of pedigrees.

If you intend to use either a carrier or an affected animal for breeding, its mate must be a clear and in the case of a carrier to clear mating you should be prepared to test the offspring. In the case of an affected animal mated to a clear the pups produced from this mating would not need to be tested as they would all be carriers.

Not only should responsibility be taken by breeders but I personally feel that the stud-dog owners can play a very responsible role in the eradication of this problem by refusing to mate untested bitches. We owe it to our lovely breed to be honest in every aspect, and to advise the general public of our inherited health problem – in time we will then be able to see the light at the end of the tunnel.

Finally I would urge all of you not to panic; this is just another problem that has to be addressed. Please do not prejudice breed type for the sake of mating clears to clears. We still need well constructed stock for the betterment of our breed; we do not wish to go back to the old fashioned sausage dog that lacks quality and elegance. ●