

HEALTH REPORT

From the Meeting of the WSS Joint Health Group

Held on 23rd November 2014

FITTING

There have been no further reports of Fitting dogs since the last meeting of the Group.

GLAUCOMA

There have been no further reports of dogs developing Glaucoma since the last meeting of the Group. The Research Study continues with James Oliver at the AHT and he sent this report dated 12th November 2014 to the JHG recently:

Glaucoma Research in the Welsh Springer Spaniel: Update from the Animal Health Trust

Background

Inherited glaucoma is a painful and blinding disease. In the Welsh Springer Spaniel, it is caused by an abnormality in fluid drainage from the eye – a condition called goniodysgenesis. Treatment options for glaucoma are limited and nearly all affected dogs need to have their eyes removed, and some are even put to sleep. The Welsh Springer Spaniel is on Schedule A of the BVA/KC/ISDS Eye Scheme for goniodysgenesis and all dogs should be examined for this condition before breeding.

In January of this year, research into the prevalence, progression and genetics of primary glaucoma in various breeds, including the Welsh Springer Spaniel, was started at the Animal Health Trust. The study is being carried out by James Oliver, one of the Senior Ophthalmologists at the AHT, and the genetics team at the AHT, which is led by Dr Cathryn Mellersh. We have been examining dogs for evidence of goniodysgenesis (the abnormality that predisposes to primary glaucoma) and collecting DNA from them. These examinations have been performed at a combination of shows and also at a 'Welsh Springer Spaniel Day' at the AHT which was both well attended and received. Thanks to the Welsh Springer Spaniel community, sample collection has progressed this year at a rapid pace surpassing that of all the other breeds being studied. To date we have collected DNA from almost 300 Welsh Springer Spaniels. These samples are mainly from UK dogs but samples have also been received from the USA, Australia, Germany and Sweden.

Our main aims are to identify gene mutations causative of goniodysgenesis and glaucoma in the Welsh Springer Spaniel and to develop DNA tests that breeders can use when making decisions on suitable matings.

Preliminary Findings

Our research has shown a surprisingly high prevalence of goniodysgenesis in the Welsh Springer Spaniel - of around 40%. This high prevalence is most likely explained by progression of disease with age. There are several examples of dogs being certified as unaffected for goniodysgenesis (under the BVA eye scheme) at a young age which have gone on to become affected and some of these have even developed glaucoma and had to have eyes removed. This finding will lead to a change in the advice with regard to frequency of eye testing for goniodysgenesis which used to be regarded as a 'one off' test. This finding also highlights the need for a DNA test for the disease as eye testing at a young age does not guarantee a dog will not develop glaucoma.

Our examinations have also revealed the relative frequency of a few other potentially inherited eye diseases including distichiasis, corneal dystrophy, multifocal retinal dysplasia, cataract and retinal degeneration. These findings stress the importance of performing a full ophthalmic examination under the BVA Eye Scheme, and not just gonioscopy, before breeding.

Laboratory investigations into the genetics of goniodysgenesis and glaucoma is progressing at a rapid rate. We have already performed a candidate gene study and identified one gene of particular interest. The results of this work were presented at the conference of the American College of Veterinary Ophthalmologists in Texas in October. The presentation was attended by around 400 veterinary ophthalmologists from around the world and was well received.

The Next Step

We have now collected enough samples to progress to the next phase of the study – to perform a genome wide association study, where we will compare the DNA from Welsh Springer Spaniels with glaucoma and/or goniodysgenesis with DNA from unaffected dogs. It is our hope that this will confirm the results of our initial candidate gene study and reveal other important genes which are associated with this complicated disease. We have been extremely fortunate so far to have secured funding from several sources to enable our research to date. So far, this research has truly been a collaborative effort with funding and support coming from the following organisations:

- *Dog's Trust*
- *Kennel Club*
- *Animal Health Trust*
- *American Kennel Club*

The next phase of our research will cost £14,000. This will allow us to examine all of the DNA for possible gene mutations that may cause goniodysgenesis and/or glaucoma in 100 dogs. So far, we have raised £8000 and thus require another £6000 to proceed. We would like to take this opportunity to invite the Welsh Springer Spaniel Clubs of the United Kingdom to contribute funding to this research and help combat this painful and blinding disease.

Many thanks in anticipation of your help with this research and please do not hesitate to get in touch should you have any questions.

(Please note that as yet there has been no announcement of the Goniodysgenesis test being changed, it remains a one-off test at present)

The Group felt that it may be that Members may wish to donate to this very worthwhile project individually, and the Joint Health Group is happy to collate any donations that you may wish to make in the hope that the WSS ownership around the country may make a worthwhile donation to this research.: Cheques should be made out to the 'WSS Joint Health Group' (noting that the funds are for the Glaucoma Study) and sent to Anne Morgan (Treasurer) at Park house Farm, Bradbourne, Ashbourne, Derbyshire DE6 1PD. Names will of course be listed when the final cheque is sent to the AHT.

Naturally, you may prefer to make your donation personally to the Animal Health Trust, but do ensure you make it clear it is for the Glaucoma Study.

ASSURED BREEDERS

The JHG Secretary had been approached by a couple of Members of the ABS recently regarding anomalies in requirements for the Eye Testing by the KC Assessors.

A consultation with Bill Lambert from the Assured Breeders Scheme at the Kennel Club, made things a little clearer as follows:

One of these queries was from a kennel which was at the time having an inspection and the Assessor insisted that she had to have her dogs tested for Hereditary Cataract. She had rung the JHG Secretary who had told the Assessor that the Kennel Club had downgraded Glaucoma to Recommended from Required, but he still insisted that that meant that all dogs should be tested for HC, even though she told him that the breed had not had a case of HC reported in the UK for well over 30 years. Bill Lambert did appear to believe that Recommended still

suggested that dogs should be tested for HC, BUT he said that as we had not had a case reported for well over 30 years, if the Assessor was informed of this at the time, they should accept it.

The second matter was with regard to testing for Glaucoma. A Breeder had informed the Secretary at the WSSC Ch. Show testing, that she had to have her bitch tested again as this was required 'annually' and despite being told that this was definitely not the case at present. She went ahead and had it done at further cost to herself as it appeared it was the ABS Assessor who had told her to do so, stating it was an 'annual' test. This was totally incorrect – confirmed by Bill Lambert.

The Secretary did request that the KC explain these queries to their Assessors, so that these situations did not arise again.

JULIE REVILL
Secretary