

AHT DISCOVERS NEW FORM OF GLAUCOMA IN BASSET HOUNDS AND LAUNCHES DNA TEST

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Examination of three Basset Hounds by an AHT vet has uncovered a condition never previously recorded within the breed – primary open angle glaucoma (POAG). Thanks to expertise within the Kennel Club Genetics Centre at the AHT the mutation responsible for the condition has been found and a DNA test launched to help breeders control this blinding disease.

The DNA test will cost £48 and is now available to order from the AHT's DNA Testing Service

<http://www.ahtdnatesting.co.uk/> less than a year after POAG was first discovered in the breed during research undertaken for a PhD project into canine glaucoma. A video about the discovery of this form of glaucoma in Basset Hounds is available to view here <https://www.youtube.com/watch?v=-QZWLxo-c7c>. James Oliver is pictured with Monty, left, the first Basset Hound discovered with POAG, owned by Su Jones, and left are her girls: Lexi and Lizzy, who are both clear of the disease.

Primary glaucoma is an inherited canine condition and is subdivided into two types: closed angle glaucoma (PCAG) and POAG. In both forms glaucoma results from reduced drainage of fluid within the eye, causing a build-up of pressure which, in turn, leads to pain and blindness.

It was during routine examinations for a PhD investigating the most common form of canine glaucoma, PCAG, in several popular dog breeds, that James Oliver, one of our specialist ophthalmologists, discovered signs of POAG within three Basset Hounds.

James said: "I've examined thousands of dogs as part of my PhD study into PCAG but this is the first time I've stumbled across a form of the disease in a breed that I wasn't previously aware of. POAG has never been recorded before in the Basset Hound, so it's a really interesting and important discovery for the breed. "What's more, as it seems to be an emerging disease in the Basset Hound, the fact that we've been able to find the genetic mutation and launch a DNA test so quickly means that breeders should be able to nip this form of glaucoma in the bud before it becomes a wide-spread problem.

"Although we may not have seen many Basset Hounds affected by this form of glaucoma the carrier rate is estimated to be at about 16% in the UK Basset Hound population, which is relatively high. Therefore DNA testing before breeding is going to be really critical in order to get this form of glaucoma under control in this lovely breed."

About canine glaucoma

PCAG, which also affects the Basset Hound, is a very painful and blinding condition which can strike suddenly and is normally unresponsive to treatment. Most affected dogs need to have their eye or eyes removed. In addition to the Basset Hound, PCAG is known to affect several other popular dog breeds, including Golden Retrievers, Border Collies and Welsh Springer Spaniels, and is the focus of James Oliver's PhD project http://www.aht.org.uk/cms-xmodnewsrss_detail/AHT_canine_glaucoma_research.html which is primarily funded by Dogs Trust.

POAG is a less common form of the disease. In some cases POAG is more responsive to treatment than PCAG, but it can still be a painful and blinding condition, with some dogs needing to have their eyes removed.

The only dog breed currently certified under the BVA/KC/ISDS Eye Scheme for POAG in the UK is the Petit Basset Griffon Vendéen (PBGV). A DNA test for POAG in the PBGV http://www.aht.org.uk/cms-xmodnewsrss_detail/First_AHT_DNA_test_for_canine_glaucoma.html was launched by the AHT at Crufts earlier this year.

James continued: “By undertaking my PhD within the Kennel Club Genetics Centre at the AHT I’ve been able to share expertise and develop the test for POAG in Basset Hounds extremely quickly, which will benefit future generations of dogs which would otherwise have gone blind.

“Not only is this test important for future breeding, but it will also enable owners of Basset Hounds to test their dogs to see if they will develop POAG and monitor them appropriately prior to on-set of the disease. Currently, there isn’t a clinical test to screen for this disease before it strikes, unlike PCAG which dogs can be examined for using the technique known as gonioscopy.

“Without the support of the Breed Club, Basset Hound owners, the AHT genetics team and Dogs Trust for funding my PhD, this discovery wouldn’t have happened. Now, I hope Basset Hound breeders will have the right knowledge and tools to be able to prevent too many more dogs suffering from this painful and blinding condition.”

Paula Boyden, Dogs Trust Veterinary Director, comments: “I’m delighted that Dogs Trust’s funding has helped to facilitate this significant and important breakthrough in Basset Hound welfare. With the research in its early stages, I’m optimistic that further developments will be made throughout the PhD.

“The findings highlight a challenge for Basset Hounds, equips breeders and vets with knowledge that simply did not exist until now, and emphasises the importance of our Canine Welfare Grants in improving dog welfare.”

Caroline Kisko, Kennel Club Secretary, said: “The discovery of the genetic mutation responsible for primary open angle glaucoma in the Basset Hound is a prime example of the fantastic work being carried out at the AHT to improve the health of pedigree dogs and to provide breeders with additional resources to help them breed healthy puppies. James Oliver’s findings will go a long way in helping to protect and maintain the health of Basset Hounds and we thoroughly commend all of his hard work in this area.

“We are proud that the Kennel Club Charitable Trust is able to support the AHT’s work through the Kennel Club Genetics Centre and we look forward to seeing ongoing developments in the area of dog health.”

For more information about the AHT’s work to fight canine glaucoma, please visit Gift of Sight: <http://www.aht.org.uk/giftofsight> .