

Saluki Health

A Century of Saluki Health

by John Davies

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When the Saluki or Gazelle Hound Club (SGHC) was formed in 1923 the founders established one of their five Club objectives as "To ensure the well-being of both individual Salukis and the breed as a whole".

There have been some notable health milestones since then.

1963 Parvovirus

In 1963, parvovirus had emerged as a killer disease. Chris Lewis wrote to the SGHC committee outlining research from the Glasgow Veterinary School into the disease, recommending vaccines that were then at an experimental stage with a then unknown period of effectiveness. Vaccines, evolved from these early recommendations, now serve as a standard part of modern day core vaccines.

1965 Progressive Retinal Atrophy (PRA)

Early in 1965, two Salukis had been diagnosed with PRA. Their owners, and breeders, were keen to give whatever assistance was required to eliminate the problem from the breed. They were happy for their dogs to be openly identified and even offered to allow them to be euthanized so that the eyes might be medically and biologically examined, and analysed. Because it was not known if the condition was hereditary or not, they withdrew all closely related stock from breeding programmes. The potential problem of PRA was extensively discussed in SGHC committee meetings. It was decided to run a mass testing session at a Club show in August that year. 114 Salukis were put forward for testing. A further two were found to be suffering from PRA. Again the owners were happy to allow their Salukis to be openly identified. The SGHC then made recommendations *"that affected hounds should not be bred from, nor should their progeny, their sire or their dam until such time as the nature of the condition is established beyond any doubt."*

Following this, a sub-committee was set up to monitor and make recommendations on the disease, and annual testing was established at Club shows until the disease appeared effectively eradicated.

The members' unity, and owners' selflessness should be remembered and applauded as an example, for all of us to follow, to keep our breed from suffering

unnecessary continuation of diagnosed diseases in future.

1992 Sudden Death Syndrome/Dilated Cardiomyopathy (DCM)?

DCM is a disease of the heart muscle that makes the muscle walls become stretched and thin.

Some cases of Sudden Death Syndrome were brought to the attention of the SGHC committee in 1992. Tessa Abbot was instrumental in raising the matter with the SGHC committee. A "Sudden Death Sub Committee" and Sudden Death Fund were established to investigate the condition in Salukis. The Sub Committee oversaw testing and several full post mortems with a view to gradually accumulating knowledge on the disease. Throughout 1995 and 1996 the condition was regularly reviewed with a heart testing session being carried out at the 1996 SGHC Championship show.

Salukis have a large heart relative to their size compared with most other dogs. Early testing found that heart murmurs were very common in the breed, with one testing session revealing that 17 out of 40 Salukis tested had a heart murmur above grade 2. (We now know that nearly all Salukis exhibit arrhythmia to a greater or lesser extent).

Throughout 1997 the Club arranged further heart testing culminating in a presentation of analysis of results in February 1998. This presentation was extremely thorough, but raised as many questions as answers, and was unable to point to the root cause of sudden death.

It was clear, however, that there was a familial element to Sudden Death Syndrome. As a result, many breeders withdrew their affected stock from breeding programmes. The net result of everybody's efforts was that instances of heart problems were reduced but never eradicated.

So the holy grail of identifying the prominent cause of sudden death syndrome was never achieved, but much progress was made towards the understanding of heart conditions in Salukis. It was also noted that line breeding correlated to sudden death. (We now know that some instances of DCM are heritable in an autosomal dominant manner. This ties in with those understandings).

In 2024, we now know that DCM can be caused by many factors including familial instances, certain infections, complications of late-stage pregnancy, heart rhythm problems (arrhythmias), high blood pressure (hypertension), obesity, and heart valve disease, such as mitral valve or aortic valve regurgitation.

In 2023 Salukis in the UK suffered an uptick in notified cases (six) of DCM. Two of the six were imported. Heart testing should always be undertaken prior to breeding to help ensure that future generations have the healthiest possible hearts.

2000 and 2017 Autoimmune Hypothyroidism

Throughout the late 1980s and 1990s Denise Rogers became increasingly aware of some autoimmune problems in Salukis. In 2000, in following up research in the USA, she became aware of an expert in the field, Dr Jean Dodds. Denise, with the help of Karen Fisher, organised for The Saluki Welfare fund to bring Dr Dodds to the UK to present a seminar on autoimmune conditions. The seminar revealed the autoimmune connection with thyroid problems as a result of which several Salukis were tested, several of which were diagnosed with hypothyroidism. In trying to present the condition to the UK Saluki community Denise met with some resistance to accept or publicise the condition. (Rather disappointing after the historic, and successful, response of members to PRA).

In 2017 one of my own Salukis, Charriok Sherzam JW (Sherzan, pet name), was diagnosed with autoimmune hypothyroidism. I researched the condition in depth. My research led to further contact with Dr Dodds whom I met in 2019, and where I learnt of the further developments in the understanding of the disease since 2000, especially in the manner of its heritability. In presenting my findings to the breed community I was initially met with reluctance to accept that hypothyroidism could be heritable and was asked, by some, not to make Sherzan's condition public. I was more amazed to find that around 50% of veterinarians did not appreciate that the condition is heritable! It later transpired that several of Sherzan's siblings

also developed the disease. Hilary, my better half, carried out in depth research on Sherzan's pedigree and found several instances of reported "thyroid problems" going back many generations. There clearly appeared to be an heritable mechanism in action.

We now know that autoimmune hypothyroidism is a complex polygenic disease. The Animal Health Trust (now Kennel Club Genetics Centre) gave invaluable help and assistance in explaining that the understanding was that an unknown number (exceeding 12) possible gene mutations were responsible. It is not yet known how these mutations interact to make a dog predisposed to suffer from hypothyroidism, but it is understood that they appear to act in an autosomal recessive manner. This means that a dog can be either clear, carrier, or affected.

Later in 2019, The SGHC and Northern Saluki Club accepted my proposals to minimise the risk of perpetuating the disease in the Club's *Voluntary Code of Breeding*, which can be viewed on the Clubs' website.

2019 Neuronal Ceroid Lipofuscinosis (NCL)

NCL is an horrific disease of the brain which normally leads to death before the age of 18 months.

In 2019 I was made aware of two Salukis, in the UK, who had been diagnosed as carriers of NCL. It is an autosomal recessive inherited disease with a simple single gene mutation. This mutation had been identified by the Norwegian University of Life Sciences. Hence there was a DNA test to identify it. I subsequently became aware of another two imported Salukis, in the UK, which were understood to be carriers.

The *Voluntary Code of Breeding* was revised to include a recommendation on NCL DNA testing. To date this appears to have successfully prevented the spread of the disease in the UK as we have had no reported cases of affected Salukis.

Today

Today, Salukis remain one of the healthiest of all breeds. With our future commitment to openly tackling health problems as they arise I truly hope that we shall maintain that position.

I would like to thank Chris Lewis, Peter Yardley, Karen Fisher, and Denise Rogers for their help and input of historic information. Also Hilary, who is the Club archivist, for helping to unearth historic documents for my research.