**FB 40**

**JKD, room for optimism; there is a way forward**

I am uncertain as to whether I am delighted or dismayed at the rapid reduction in the incidence of JKD in the UK. I would of course be delighted if it represented a true decline in numbers but I worry that it could be in part due to a failure of reporting. Viewing the situation on the Continent it is clear that people everywhere are deeply worried by the prevalence of JKD, but most are reluctant to report cases. Breed Clubs too appear to be avoiding taking action. Why is this? I had thought that I had got the one great barrier on the Continent crossed when I managed to get Swedish research vet, Ake Hedhammar, to agree on the JKD approach in addition to his RD diagnosis, but my boxerjkd colleagues have hammered home to me that the main issue is that breeders are truly frightened by this disease and what it would mean if their stock was found to be affected. Somehow it seems to be imagined that this would be the end of their breeding line. This is not so. Boxerjkd has made only two key breeding recommendations, 1. avoid inbreeding as far as possible, and 2. withdraw animals from further breeding if they produce affected progeny. Nothing more than this has been proposed and nothing more than this can be justified at this time. Neither action destroys kennel lines, but let me expand on these recommendations.

Inbreeding:

1. JKD is indicated to be inherited as a recessive and, as everyone knows, inbreeding pulls out hidden recessives, so if JKD appears in any dog, the gene is likely to be present in SOME of its relatives. Therefore inbreeding increases the chance of the disease being found. It does not cause the disease. It only increases the risks of it appearing.
2. Outcrossing can also bring out the disease, but only if both parents carry the gene and the risks of this being so, on the basis of chance alone, are far less likely than with inbreeding.
3. The Boxer has less genetic diversity than most other breeds and this alone is already leading us into a number of other genetic problems. Inbreeding and excessive use of popular sires are continually worsening the situation. So, quite apart from JKD, avoiding inbreeding can only benefit the breed.

Withdrawal of JKD producers from breeding:

1. It is self-evident that a first essential procedure for avoiding JKD is to withdraw producers from further breeding.
2. However, at this time because of the incomplete understanding of the disease and the lack of information on its incidence and distribution, it is important that more stringent selection is NOT applied. There is an absolute need for progeny and later descendants of good stock to be maintained in the breeding population such that all remaining genetic diversity is maintained.
3. However, to ensure steady selection against the disease all progeny must be screened (at least until 3 years of age, see note 6 below)) and all JKD cases reported and their parents then withdrawn from breeding. This screening is absolutely ESSENTIAL if a decline in the incidence of the disease is to be achieved.
4. This level of selection is minor and will not reduce diversity greatly. It will however maintain steady pressure against the disease. No LINES should be lost.
5. At this time, knowledge of the distribution of JKD throughout the breed has not been established; the gene could be in many lines or only a few. Therefore, it is important that ALL LITTERS BE MONITORED WHETHER THERE IS A KNOWN RISK OF JKD OR NOT.
6. For practical reasons, litter monitoring can be conducted without worrying owners simply by keeping regular contact and checking that the dogs are ostensibly healthy, which is good breeding practice anyway. ANY possible JKD symptoms, as described in the boxerjkd.com website, should be noted. Boxerjkd.com will continue to publish pedigrees.

If breeders everywhere applied such basic recommendations the incidence of JKD could be expected to decline substantially. The information gleaned in the process would also greatly aid attempts to find the gene: it would aid the identification of dogs free of the gene which, in the absence of tests for the disease, is currently the major difficulty for this research.

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