

Second Thoughts

By Pam Paloma

When I first wrote an opinion piece for the seizure study, I titled it "*A Matter of Choice*". Almost five years later, I am not inclined to be so generous. I now regard the problem to be fraught with issues of ethics and responsibility to the breed. I am stunned that there are still people breeding very risky animals and worse that these "dirty" pedigrees are now being shared around the world.

There are over 400 reported canine genetic diseases. Thankfully, the IW as a breed has only a few we must deal with. Cancer, bloat and heart disease are common across the board. It is our responsibility not to add seizures to the mix. Unlike many breeds, seizures in IW's is a fatal disease. The medications are very difficult to regulate resulting in loss of appetite, touch sensitivity, disorientation and frequent breakthrough seizures. Everyone tries some method but within two years the futility gives way to the inevitable and the dog is euthanized.

The biggest mistake we can make is out-crossing a carrier to other lines because it increases the carrier frequency in the other lines and ultimately increases the proportion of affected dogs in the overall gene pool. Recently I saw a lovely young bitch that was imported from Europe. Imagine my dismay to see in her pedigree that her grandfather was one of the American dogs who is a documented producer with 10 producers in his 6 generation pedigree. And worse, she is owned by people who should know better.

The incidence of seizures in the IW has been a closely guarded secret since the 70's. I think now it is out in the open, because so many dogs and the people they live with around the world have been affected. To date, the study has 146 fully documented cases entered since 1999. The earliest reported case was a dog born in 1967. The number of entered animals includes 218 producers and 184 affected dogs. Parents of producers and siblings of affected and producers total 1,492. There were 33 litters with multiple affecteds. Although the incident rate seems to be slowing we should not fool ourselves that the problem is going away. There are many breeding animals in many countries now that should not be mixed.

Since we do not yet have a DNA based test to identify carriers, the relative risk must always be calculated. Breeders can contact Anne Janis for the university-approved computer-aided risk analysis for seizures. This helps to determine the relative risk of producing affected or producer animals in a potential breeding or in a single animal.

We are dealing at this point with an unannounced mode of inheritance, but it is conceivable that we could remove the seizure trait from the gene pool by following the commonly accepted guidelines for genetic disorders as presented by J. S. Bell at the 2001 AKC Health Conference, "*Breeding Strategies for the management of genetic disorders*".

1. Only normal (unaffected) dogs should be bred
2. Direct ancestors should be normal - parents and grandparents
3. Normal dogs should have normal littermates and greater than 75% normal cousins
4. Look for dogs that are better than breed average in depth and breadth of pedigree as it

relates to seizures

5. Do not mix out-crossed carriers back into the line

In summary, it is important to decrease the number of affected dogs and eliminate them from breeding programs while maintaining enough genetic diversity to avoid concentrating other undesirable traits. Stay informed and use the information in Anne Janis' database to calculate the relative risk of potential breedings. As a side benefit, she can also calculate the risks for PRA. Using sound genetic principles will help us all reach our goals and still maintain the IW's wonderful traits including its magnificent character.

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