Addison’s Disease: A Recessive Trait in Standard Poodles

Age of onset for canine hypoadrenocorticism (Addison’s disease) in standard poodles ranges from 6 months to 8 years, making early detection of at-risk animals desirable. This study evaluated 778 standard poodles with known Addisonian phenotypes. Addisonian status was confirmed clinically in 8.6% of the poodles enrolled in the study (67 were classified as affected and the remaining 711 as normal) by adrenocorticotropic hormone challenge, and the collected data were subject to complex segregation analysis. This study suggests that the heritability of hypoadrenocorticism is influenced by an autosomal recessive gene. The disease affected both sexes with equal probability, although red coat color had a significant impact in this study (possibly due to the small number of dogs with that coat color). Evidence of a recessive gene that regulates canine hypoadrenocorticism offers the opportunity for early detection of affected dogs and dogs that carry the disorder, allowing for better-informed breeding decisions. The next step would be to identify the causal gene and develop a genetic test for breeding selection.

COMMENTARY: Recent data would lead us to believe that canine Addison’s disease is more common than previously suspected. The old saying that “to diagnose a disease you have to suspect it” holds true in this disorder since so many cases can be obscure in their presentation. Clinicians have long suspected that standard poodles may have a genetic susceptibility to the disease. Now we have proof. Addison’s disease should always be in the differential diagnosis of any sick standard poodle with no obvious diagnosis.— Colin F. Burrows, BVetMed, PhD, MRCVS