VETERINARY TECHNICAL DATASHEET

Sensory Ataxic Neuropathy, (SAN)

Mutation Found In :Golden Retriever

Disorder Type

- Nervous system

Disease Severity

- Severe

Background

Sensory ataxic neuropathy (SAN) is a slowly progressive neurologic disorder that was found in Golden Retrievers. However, a genetic variant in the same location has been found in Akitas, but it has not been shown to cause any clinical signs. Hence the clinical significance of this mutation in dogs that lack Golden Retriever ancestry is not yet clear. The mode of inheritance is mitochondrial and is inherited through the maternal lines.

Key Signs

- Ataxia
- Dysmetria
- Difficulty maintaining balance

Clinical Description

Dogs with SAN begin to exhibit evidence of the condition between 2 to 8 months of age. The clinical signs appear insidiously, with affected dogs exhibiting ataxia and dysmetria. Decreased spinal reflexes and abnormal postural reactions are also seen, though they are not accompanied by muscle atrophy. Disease progression is slow but euthanasia is often elected while the dog is still a juvenile. Akitas have been found to have an alternative genetic variant in the exact same location as the mutation identified in Golden Retrievers. However, the Akita variant is neutral and does not cause the condition, so dogs inheriting this neutral variant are not affected.

Mode of Inheritance

- mitochondrial

Gene Name

- tRNATyr

Next Steps

Humane euthanasia for affected dogs is often elected. There is no cure.

References

Jäderlund KH, Orvind E, Johnsson E, Matiasek K, Hahn CN, Malm S, Hedhammar A. A neurologic syndrome in Golden Retrievers presenting as a sensory ataxic neuropathy. J Vet Intern Med. 2007 Nov-Dec; 21(6):1307-15.

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