

VETERINARY TECHNICAL DATASHEET

Hypomyelination; mutation originally found in Weimaraner



Mutation Found In :Weimaraner

Disorder Type

- Nervous system

Disease Severity

- Mild/moderate

Background

Hypomyelination in Weimaraner dogs is an inherited neurological disorder characterized by delayed myelination of the central nervous system. Myelin is an insulating substance surrounding the axons of the cells of the central nervous system. Hypomyelination causes generalized tremors in puppyhood. The disorder has been described in several other dog breeds, but the causative mutations remain unknown. Hypomyelination is inherited in an autosomal recessive manner in Weimaraners.

Key Signs

- Action tremors
- Locomotory difficulties

Clinical Description

The onset of signs typically occurs at 1-2 weeks of age. A characteristic sign of hypomyelination is muscle tremor. The severity of the tremor can vary between individuals, however body tremors tend to worsen with activity (action tremor) and decline during rest. Affected dogs are able to walk, but they may have a "hopping-like movement of the hind legs. Affected puppies usually improve by 3-4 months of age, although some dogs may continue to exhibit a mild persistent tremor of the hind legs.

Mode of Inheritance

- autosomal recessive

Gene Name

- FNIP2

Next Steps

Treatment is supportive care and assistance with daily activities as needed depending on the severity of the dog's clinical signs.

References

Pemberton TJ, Choi S, Mayer JA, Li FY, Gokey N, Svaren ., Safra N, Bannasch DL, Sullivan K, Breuhaus B, Patel PI, Duncan ID. A mutation in the canine gene encoding folliculin-interacting protein 2 (FNIP2) associated with a unique disruption in spinal cord myelination. 62:39-51, 2014.