

VETERINARY TECHNICAL DATASHEET

Sensory Neuropathy; mutation originally found in Border Collie



Mutation Found In :Border Collie

Disorder Type

- Nervous system

Disease Severity

- Severe

Background

Sensory neuropathy is a rare, severe neurological disorder caused by the degeneration of nerve cells. Clinical signs emerge in puppyhood. Affected dogs have proprioceptive deficits and harm themselves due to lack of pain sensation. The disorder is caused by the degeneration and loss of nerve fibers in sensory, and to a smaller extent motor, nerve fibers. The prognosis is grave.

Key Signs

- Uncoordinated gait
- Knuckling of hindpaws
- Self-mutilation

Clinical Description

Clinical signs are detectable in puppies from two to seven months of age. Clinical signs include incoordination of gait (ataxia), knuckling of the paws, hyperextension of the limbs, and self-mutilation of the limbs. The hind legs are usually most severely affected. Loss of sensation is progressive and affects all limbs. Urinary incontinence and regurgitation can occur in the later stages of the disorder.

Mode of Inheritance

- autosomal recessive

Gene Name

- FAM134B

Next Steps

There is no curative treatment for the disorder. Treatment is supportive and the prognosis is poor.

References

Forman OP, Hitti R, Pettitt L, Jenkins C, O'Brien D, Shelton G, De Risio L, Quintana R, Beltran E, Mellersh C. An Inversion Disrupting FAM134B Is Associated with Sensory Neuropathy in the Border Collie Dog Breed. *G3 (Bethesda)*. 2016 Sep 8;6(9):2687-92. doi: 10.1534/g3.116.027896.