VETERINARY TECHNICAL DATASHEET

Exercise-Induced Collapse, (EIC)

Mutation Found In :Cocker Spaniel, Boykin Spaniel, Bouvier Des Flanders, Chesapeake Bay Retriever, Clumber Spaniel, Curly Coated Retriever, German Wirehaired Pointer, Labrador Retriever, Mixed breed, Old English Sheepdog, Pembroke Welsh Corgi

Disorder Type

- Neuromuscular

Disease Severity

- Mild/moderate

Background

EIC is caused by a mutation in the DNM1 gene that was first identified in the Labrador Retriever. It presents as exercise intolerance in otherwise normal dogs. Affected dogs appear normal up to moderately strenuous activity levels, but they develop a wobbly, uncoordinated gait that is most severe in the hind legs and can collapse after short periods of strenuous activity.

Key Signs

- Hind limb weakness
- Ataxia after intense exercise
- Severe cases: short-term flaccid paralysis

Clinical Description

Affected dogs appear normal during low to moderately strenuous activity, but they develop a wobbly, uncoordinated gait that is most severe in the hind limbs after brief bouts of strenuous activity. Typically the dogs remain conscious and are not in pain during an episode. In some cases, however, the signs are severe with full body weakness and low muscle tone (flaccid paralysis), confusion, loss of consciousness, and seizures. Very rarely, death can occur. The episodes typically last 5 to 10 minutes and most dogs will recover completely within 15 to 30 minutes.

Mode of Inheritance

- autosomal recessive

Gene Name

- DNM1

Next Steps

Treatment is supportive care during the periods of collapse and limiting strenuous exercise to avoid episodes.

References

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