

VETERINARY TECHNICAL DATASHEET

Juvenile Laryngeal Paralysis and Polyneuropathy, (JLPP)



Mutation Found In :Black Russian Terrier, Rottweiler

Disorder Type

- Nervous system

Disease Severity

- Severe

Background

Disorders resembling the human Warburg Micro syndrome are seen in dogs. These disorders are characterized by polyneuropathy with ocular abnormalities and neuronal vacuolization (referred as POANV). The subtypes exhibit different characteristics and affect different breeds. In Black Russian Terriers and Rottweilers, the disorder is commonly referred to as juvenile laryngeal paralysis and polyneuropathy.

Key Signs

- Ataxia
- Weakness
- Microphthalmia
- Laryngeal paralysis

Clinical Description

Difficulty breathing due to laryngeal paralysis is a severe but very typical clinical sign associated with the disorder in Black Russian Terriers and Rottweilers. Affected puppies develop noticeable problems with inspiration at around 3 months of age. Laryngeal paralysis also causes problems in swallowing, creating a risk for aspiration pneumonia. These puppies may also have evidence of ocular signs such as microphthalmia. The progression of the disease is fast and affected puppies are often euthanized soon after diagnosis on welfare grounds.

Mode of Inheritance

- autosomal recessive

Gene Name

- RAB3GAP1

Next Steps

Currently, no curative treatment exists for this disease. Treatment is supportive care. The prognosis is poor and euthanasia is often elected on welfare grounds.

References

Mhlanga-Mutangadura T, Johnson GS, Ashwini A, Shelton GD, Wennogle SA, Johnson GC, Kuroki K, O'Brien DP. A Homozygous RAB3GAP1:c.743delC Mutation in Rottweilers with Neuronal Vacuolation and Spinocerebellar Degeneration. J Vet Intern Med. 2016 May;30(3):813-8. doi: 10.1111/jvim.13921. Epub 2016 Mar 10.