VETERINARY TECHNICAL DATASHEET

Spinocerebellar Ataxia or Late-Onset Ataxia, (LOA)

Mutation Found In :Russell Terrier, Parson Russell Terrier

Disorder Type

- Nervous system

Disease Severity

- Moderate

Background

Spinocerebellar ataxia is a neurological disorder characterized by uncoordinated movements and impaired balance. The mutation has been found in various terrier breeds and is inherited in an autosomal recessive fashion.

Key Signs

- Ataxia
- Hypermetria
- Impaired balance

Clinical Description

Clinical signs of this condition are usually first detected when the puppy is between 6 and 12 months of age. The first observable sign of spinocerebellar ataxia is lack of muscle coordination, particularly evident in the pelvic limbs, and there may be a swaying gait observed. These dogs tend to have trouble climbing stairs and jumping. They may also exhibit hypermetria and loss of balance. The condition is progressive in the initial weeks but then tends to reach a degree of stabilization. However, intermittent worsening may occur. Affected dogs are often euthanized due to difficulties walking.

Mode of Inheritance

- autosomal recessive

Gene Name

- CAPN1

Next Steps

Depending on the severity of the clinical signs, a dog can be supported to reduce the likelihood of injury when moving around. Stairs may pose a particular risk and should be avoided.

References

Forman OP, De Risio L, Mellersh CS. Missense mutation in CAPN1 is associated with spinocerebellar ataxia in the Parson Russell Terrier dog breed. PLoS One 8:e64627, 2013.

Wessmann A, Goedde T, Fischer A, Wohlsein P, Hamann H, Distl O, Tipold A. Hereditary ataxia in the Jack Russell Terrier - clinical and genetic investigations. J Vet Intern Med 2004;18:515-521.