

VETERINARY TECHNICAL DATASHEET

Benign Familial Juvenile Epilepsy or Remitting Focal Epilepsy



Mutation Found In :Lagotto Romagnolo

Disorder Type

- Nervous system

Disease Severity

- Moderate

Background

Benign familial juvenile epilepsy (BFJE) is a neurological disorder identified in the Lagotto Romagnolo breed. Affected dogs suffer from focal-onset epileptic seizures in puppyhood, caused by a disruption of the normal electrochemical activity of the brain. The seizures invariably resolve spontaneously by four months of age. In some cases, carriers might also present epileptic signs.

Key Signs

- Seizures with whole body tremors
- Ataxia (uncoordinated movements)
- Stiffness
- Potentially altered consciousness; may show generalized ataxia between seizures

Clinical Description

Onset of epileptic seizures in BFJE is between 5 to 9 weeks of age. The seizures consist of whole-body tremors, ataxia (uncoordinated movements), and stiffness. Some affected puppies are able to stand and/or walk during a seizure while others are recumbent and unable to stand. The epileptic signs can sometimes be associated with alterations of consciousness. Frequency of seizures can vary between individuals: there can be several seizures a day or sporadic seizures a few times a week. Usually an affected puppy seems completely normal between the seizures. However, in severe cases there can be neurological signs, such as generalized ataxia between the seizures. The BFJE form of epilepsy is relatively benign since the seizures typically end by 4 months of age.

Mode of Inheritance

- autosomal recessive

Gene Name

- LGI2

Next Steps

For affected dogs clinical sign progression should be carefully monitored, ensuring the puppy is safe during any seizures and has any required support. Some affected puppies have been treated with anti-epileptic medication like phenobarbital on a short term basis until they are more than 4 months of age. In medium term follow-up, the majority of affected dogs did not suffer any additional seizures as adults.

References

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Jokinen TS, Metsähonkala L, Bergamasco L, Viitmaa R, Syrjä P, Lohi H, Snellman M, Jeserevics J, Cizinauskas S. Benign Familial Juvenile Epilepsy in Lagotto Romagnolo Dogs. J Vet Intern Med 2007;21:464-471.

