

Cystinuria of the Newfoundland

A fatal kidney disease prevented thanks to a DNA test

Cystinuria is a kidney dysfunction. Around 26% of Newfoundland are carriers of the genetic mutation responsible for the disease. A reliable DNA test can screen stud dogs and brood bitches, in order to adapt matings and avoid birth of affected puppies and spread of the disease in the breed.

A fatal hereditary disease

Cystinuria leads to the formation of kidney stones and inflammation of the urinary tract from the age of 6 months old. The dog has difficulty urinating and blood in the urine, untreated, the disease leads to kidney dysfunction and a premature death of the dog.

A fairly common disease

About 26% of Newfoundland in Europe are carriers of the genetic mutation responsible of Cystinuria. A breeder can mate without noticing a male « carrier » and a female « carrier » and produce a litter containing affected puppies.

A dog « carrier » of the mutation will not develop the disease but transmits it to 50% of the puppies. A stallion « carrier » of the mutation which is used a lot for reproduction, spreads the disease through the breed and helps to increase the frequency of the mutation and multiply the number of affected dogs.

A preventable disease

A puppy can be affected if his two parents are carriers of the mutation. Breeders unaware of Cystinuria can mate stud dogs and brood bitches carriers of the mutation and produce affected puppies which will not develop the disease before the age of 6 months.

A DNA test called CYST, can detect the Cystinuria of the Newfoundland with a reliability above 99%.

Avoid the birth of affected puppies

In order to secure its kennel and avoid the risk of production of affected puppies, the breeder must screen its breeding dogs thanks to the CYST DNA test.

When acquiring a puppy for breeding or when a stud dog is used for a mating, the breeder verifies the genetic status of the dog for Cystinuria, asking for the result of the CYST test.

A DNA test easy to perform

The veterinarian performs a simple cheek swab and sends it to the laboratory. The result, delivered within few days, indicates if the tested dog is clear, carrier or affected for the Cystinuria. A genetic certificate displaying the result must be used as a guarantee for a mating or to justify the sale of puppies clear of Cystinuria.

The veterinarian who notices early kidney issues in a young Newfoundland can process a DNA test to confirm or refute the diagnosis of Cystinuria. If the dog is affected, parents have to be screened.

A breeder who knows the genetic status of the dog can select its breeding dogs, adapt matings, avoid the birth of affected puppies and limit the spread of this kidney disease in the breed.

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