Canine Multi-focal Retinopathy (CMR)

Description

Canine Multi-focal Retinopathy (CMR) is a recently identified recessively inherited eye disease. The condition observed at an ophthalmologist's exam includes numerous distinct (i.e. multi-focal), roughly circular patches of elevated retina with accumulation of material that produces gray-tan-pink colored lesions. These lesions, looking somewhat like blisters, vary in location and size, although typically they are present in both eyes of the affected dog.

Symptoms

The disease generally develops in young dogs before 4 months and might progress slowly, might appear to heal, or might even appear and then go away again. Some dogs affected with CMR do not show clinical symptoms of disease until later in life. Most dogs exhibit no noticeable problem with vision despite their abnormal appearing retinas. And in almost all cases, CMR does not progress significantly over time. The lesions in the Coton de Tulear are often more serious and seem to remain longer than in some of the other CMR-affected breeds. In rare severe cases, the clinical diagnosis could be confused with progressive retinal atrophy (PRA).

Treatment

There is no cure or treatment for CMR. Prevention is important.

Test method

The OptiGen® CMR test is a DNA-based test that accurately diagnoses CMR. The test also detects CARRIERS of this condition and clears dogs that are genetically NORMAL.

The CMR test is done on a small sample of blood obtained by your veterinarian. This allows the lowest risk of contamination of the sample and added assurance of a match of the sample with the identified dog.

The test application form can be found at:

http://www.optigen.com/opt9_test_cmr.html

Genetic/breeder information

The genetic test for CMR is valuable for identifying the cause of a retinal deformation. Given the exact genetic diagnosis, the owner can be reassured that there probably will be little or no vision loss due to this condition. All the same, future cases of the condition can be prevented using the CMR test as an information tool for breeding.

Due to the abnormal appearance of the CMR-affected retina, CERF, ACVO, ECVO and other ophthalmologist's eye exam reports typically record these multi-focal lesions as "retinal dysplasia" or "retinal folds", to denote a defect in formation of the retina. Such findings might disqualify the dog from breeding. Presently CERF doesn't list CMR as a specific condition, but does fail a dog for "retinal dysplasia/retinopathy – folds, detached."

Our current understanding is that CMR is inherited in an autosomal recessive pattern. This means the gene mutation responsible for CMR is located on an autosome (that is, a chromosome that is not a sex chromosome) and CMR disease results when the gene mutation is passed to the offspring by both the mother and the father.

Stats within CdT breed

The exact frequency of this disease, and of the gene mutation causing it, are not known as yet. Data accumulated through genetic testing will help to provide that information.

Source of data

http://optigen.com/