Result report certificate
Detection of mutation in dog PRCD gene

Owner address

Perščhalová Petra
Lesní 141
25070 Postřižín
Czech Republic

Details of animal

Case: 461
Name: Benjamin Ramkas
Breed: Australian silky terrier
Sex: male
Year of birth: 2001
Tattoo / Reg. num.: -
Microchip: 985100009648790
Date received: 9.2.2010
Sample type: blood

Result: N/N

Result codes:
N/N clear (normal homozygote)
N/P carrier (heterozygote)
P/P affected (mutated homozygote)

Result interpretation

Mutation 1298G>A in PRCD gene in CFA9 (canine chromosome 9) has been examined. This mutation induces progressive retinal atrophy – prcd (progressive rod cone degeneration). Disease causes the degeneration of retinal cells in the eye. Firstly, rod cells are affected and the animal develops night blindness. Later, cone cells degenerate. That results in complete blindness of animal. The age of onset of disease varies, but, generally, it can not be recognized before the adulthood of the animal.

Prcd-PRA is inherited as an autosomal recessive trait. That means the disease affects dogs with P/P genotype only. The dogs with P/N genotype are considered carriers of the disease (heterozygotes). In offspring of two heterozygous animals following genotype distribution can be expected: 25 % N/N (healthy non-carriers), 25 % P/P (affected), and 50 % N/P (healthy carriers). Because of high risk of producing affected offspring, mating of two N/P animals (carriers) can not be recommended.

The PRA-prcd mutation was found in following dog breeds: Miniature Poodle, Toy Poodle, American Cocker Spaniel, English Cocker Spaniel, Portuguese Waterdog, Labrador Retriever, Golden Retriever, Chesapeake Bay Retriever, Nova Scotia Duck tolling Retriever, Entlebuch Mountain dog, Swedish Lapp dog, Finnish Lapp dog, Silky Terrier, English Mastiff, Australian cattle dog, Greyhound, Basenji and Papillon. With lower probability, other breeds can be also affected by PRA-prcd.

Report date: 17.2.2010
Responsible person: Mgr. Markéta Dajbychová, analyst