

CATARACT OF THE DOGS: ETIOLOGY, BIOMETRY OF THE LENS AND PECULIARITIES OF THE CRYSTALLINS

Eglė Svaldenienė¹, Margarita Grikšaitė¹, Marija Paunksnienė¹, Algis Noreika¹, Vida Babrauskienė¹, Alvydas Paunksnis², Leonidas Ivanovas²

Summary. The aim of this study was to evaluate some factors of cataract etiology, to evaluate morphological features in healthy and cataract dogs lenses using ultrasonic equipment, to compare amount of soluble proteins in healthy and cataract dogs lenses and evaluate distribution of crystallins in different fraction according molecular mass.

Investigation of 112 dogs showed that cataract usually found in oldest dogs: the most cataract lenses were found in the 8-12-year-old dogs. Frequently cataract was found in mixed-breed dogs and females had cataract more often than males. Ultrasonic biometry of healthy and cataract lenses showed that lens thickness decreased in cataract dogs, but weight of cataract and healthy dogs lenses was the same. Biochemical investigations of cataract and healthy dogs lenses showed decreased amount of soluble proteins in cataract lenses. We found the significant decrease ($P < 0.05$) of small molecular weight proteins in cataract lenses.

Keywords: cataract, dog, ultrasonographic biometry, lens proteins (crystallins)