

THE INFLUENCE OF *CHLORELLA VULGARIS* IFR-111 ON STRUCTURAL AND BIOCHEMICAL FEATURES OF RABBITS EYES

Marija Paunksnienė¹, Vida Babrauskienė¹, Leonidas Ivanovas², Ilona Sadauskienė²

¹*Lithuanian Veterinary Academy, Tilžės str. 18, LT-3022 Kaunas, Lithuania; e-mail: oftalmolog@lva.lt;*

²*Institute for Biomedical Research, Kaunas Medical University, Eivenių g. 4, LT-3022, Kaunas, Lithuania; e-mail: ilona_sad@med.kmu.lt*

Summary. *Chlorella vulgaris* (green algae) is used in the field of human and animal nutrition. The aims of performed study were to investigate the effects of *Chlorella vulgaris* strain IFR-111 on eyes structural elements, to compare the amount of water soluble lens proteins in control and experimental groups and to evaluate the distribution of these proteins between fractions of different molecular mass. A-mode ultrasonography was used to determine globe axial length, anterior chamber depth, axial lens thickness and axial vitreous length. Globe axial length, anterior chamber depth and axial vitreous length were not statistically different between the groups, apart from lens thickness. Lens thickness of rabbits in experimental group was reduced on 12.49 % compared to the controls. It was determined that amount of soluble proteins was on 15 % higher in the lens of control group compared with this parameter in experimental group. The evaluation of distribution of soluble lens proteins between different molecular mass fractions showed that in high molecular mass fraction in experimental group there was 27 % increase compared to the control group.

Key words: *Chlorella vulgaris*, eye, ultrasonic biometry, lens proteins.