

## THE RELATIONSHIP OF THE LENS NUCLEUS ULTRASONIC AND MECHANICAL PROPERTIES IN DOGS

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**Summary.** Cataract is the leading cause of blindness worldwide in animals, particularly in dogs, and cataract extractions are most common of all ophthalmic procedures. Cataract is predominantly an age related disease and with increased of lifetime, the frequency of cataract surgery significantly increases. The aim of performed study was to investigate experimentally the relationship between ultrasonic and mechanical characteristics of nucleus cataract in dogs. By calculating the ultrasound attenuation coefficient of lens stiffness was estimated *in vivo*. It was shown, that mechanical properties of the cataractous lens are one of the major factors influencing the suitability of a patient for phacoemulsification.

**Keywords:** cataract, ultrasonic biometry, lens proteins, cataract of dogs.