

**OPTIMAL PARAMETERS OF RADIATION OF HELIUM-NEON
LASER FOR RECOVERING OF UTERUS NECK EPITHELIUM
DAMAGES CAUSED WITH EXPERIMENTAL MODEL**

*Evgenii Nikolaevich Krikun, Dr Sc¹, Sergei Nikolaevich Suprun, M Sc¹,
Yana Evgenievna Krikun, B Sc¹, Roman Filippovich Kapustin, Dr Sc²*

*¹ Department of Human Anatomy and Histology, Belgorod State University, Belgorod,
Russia, ² Department of Animal Morphology, Belgorod State Agricultural Academy, Maiskii,
Russia*

In this work we have morphologically substantiated the optimal parameters of laser radiation over the model of erosion process of uterus neck in an experiment. The investigation has been done with puberal rabbits-females "chinchilla" breed (106 animals). The investigations have been done with the keeping of rules of realizing the work with experimental animals. The best results have been obtained in a group, where constant regime of laser influence with 20 mvt. and with exposure during 3-5 minutes has been used. At this time we have defined microscopically the activation of "reserved" cells, reducing of folds and smoothing of epithelium layer. Data of electronograms have testified about the reducing of cells' heterogeneity, contacts between them have been realized with the help of deep invaginal ties. Cells' nucleus have held nucleus of block- fibrillation structure. Cells with enlarged glycocalicks and considerable quantities of mitochondria, located in groups, have been discovered during the investigation of connective tissue. In the structure of capillary together with light, having large nucleus and diluted cytoplasm endotheliocytes, there have been endotheliocytes with concentrated fine-dispersive cytoplasm and small nucleus, having oval form. In the whole, the use of radiation of helium - neon laser in given parameters, judging to the state of cells' elements, promotes the activation of intracellular biosynthetic processes and leads to more intensive recovering of epithelium structure through stimulation of reparative regeneration of destroyed cells and tissues components. Thus, the parameters of radiation of helium - neon laser for the best recovering of uterus neck epithelium damages caused with experimental model have been defined and morphologically substantiated.