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NANOPARTICLES Ca/Co-HAp IN THE TREATMENT OF WEAKENED BONES JAW TEGMENTA

Z. Ajduković¹, N. Ignjatović², <u>N. Petrović¹</u>, J. Rajković³, D. Kenić-Marinković¹, S. Najman⁴, D. Uskoković²

¹Faculty of Medicine, Clinic of Stomatology, Department of Prosthodontics, University of Niš, Serbia, ²Institute of Technical Sciences of SASA, Belgrade, Serbia, ³Department of Biology and Ecology, Faculty of Science and Mathematics, University of Niš, Serbia, ⁴Faculty of Medicine, Institute of Biomedical Research, University of Niš, Serbia

The lack of bone in the jaw tegmenta inflicts major problem and leads to an inability to adequately treat stomatoprosthetic patients. If the bone tissue damage is minor, the balanced activities of osteoblasts and bone osteoclasts can repair it independently. If the damage is bigger it is necessary to support the biological potential to repair the bone, and for that reason nanoparticle biomaterial Ca / Co-HAp was used in this study. The research was done on rats with uniform anatomical and physiological characteristics. Assessment of repair and consolidation of the jaw bone tegmenta was performed by histomorphometric and SEM analysis. The best results were obtained in the experimental group of animals where the Ca / Co-Hap was mixed with autologous plasma. Following the implementation of the above mentioned nanocomposites, a significant formation of new bone was evident on the SEM analysis, as well as the rising of histomorphometric parameters of bone formation, which indicates that the Ca / Co-HAp nanocomposite is the material of choice for the rapid regeneration and repair of bone jaw tegmenta.