

USE OF CELL TRANSPLANTS IN JAW RECONSTRUCTIVE SURGERIES

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Introduction: During the years 2006-2024, a lot of 190 patients were studied, all of which underwent treatment in the department of oral and maxillofacial surgery, for jaw bone necrosis, caused by drug use, bisphosphonates or radiotherapy. The patients were observed for a period of 5-15 years, some of which needed reconstructive surgeries. For a faster formation of bone tissue were used cell transplants and acrylic removable dentures.

Materials and Methods: The study was performed on 10 patients, who had multiple treatments in the department of oral and maxillofacial surgery. The research contained data from the anamnesis, history of the disease, clinical examination, and paraclinical examination. Cell transplantation was used, collected from the ileum bone grafting and produced at The Laboratory of Tissue Engineering and Cell Cultures of the *Nicolae Testemitanu* State University of Medicine and Pharmacy, in cooperation with the Human Tissue Bank from Orthopedic and Traumatology Hospital from the Republic of Moldova.

Results: This method was performed on 4 women and 6 men of 35-55 years of age. The reconstruction surgery of the upper jaw included the closing of the oro-sinusal communication, by forming a mucoperiosteal graft from the hard palate and repositioning and suturing it onto the defect, with later injecting cell transplant into the surgical site. After 14 days an acrylic removable denture is confectioned, which stimulates bone tissue growth by applying pressure. After the reconstruction surgery of the oral cavity the communication may form again due to lack of tissue, but this method prevents contamination of the sinus with food, as well as stimulates osteocyte growth.

Conclusions: The use of cell transplants and acrylic dentures after reconstruction surgery of the upper jaw speeds up the healing process and forming of bone tissue.

Keywords: jaws, necrosis, cell transplant.