

EFFICACY OF DENTAL IMPLANTATION IN THE COMPREHENSIVE REHABILITATION OF PATIENTS FOLLOWING COMBINED TREATMENT FOR MAXILLOFACIAL NEOPLASMS

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Objective. To evaluate the efficacy and prospects of dental implantation as a method for the functional rehabilitation of patients in remission following combined treatment for malignant neoplasms of the maxillofacial region.

Material and Methods. A comprehensive examination and treatment of 30 patients, divided into two groups, was conducted. The main group (15 patients) had previously undergone chemoradiotherapy (total focal dose of 30–65 Gy), while the control group (15 patients) comprised somatically healthy individuals. Implantation was performed according to a two-stage protocol (remission period > 6 months). CBCT, orthopantomography (OPTG), and histomorphometric analysis of trephine biopsy specimens were utilized to evaluate bone tissue status and osseointegration.

Results. Characteristic morphological alterations were identified in the main group, including cortical plate thinning and the fusion of Haversian canals. The volume of regenerated bone tissue was 57%, which was significantly lower than that of the control group (65%, $p < 0.05$). Despite specific microarchitectural alterations and delayed soft tissue healing, complete osseointegration was successfully achieved in all cases (26 implants in the main group). It was established that a total radiation dose below 70 Gy and the absence of parenteral bisphosphonate therapy serve as critical success factors.

Conclusions. Dental implantation is an effective and safe modality for restoring the dentomaxillary system in oncological patients during the period of stable remission. Adherence to specialized clinical protocols facilitates the attainment of implant survival rates comparable to conventional standards, significantly enhancing the quality of life for this category of patients.

References

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