

OPTIMIZATION OF SURGICAL ACCESS THE LOWER JAW MOLARS

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<https://doi.org/10.5281/zenodo.14048831>

Introduction. To date, there are numerous surgical intervention techniques that allow for the avoidance of tooth extraction in chronic periodontal processes. However, surgical revision in the area of multi-rooted teeth leads to bone loss in the surgical intervention zone, increases the risk of vascular-nervous bundle damage, and prolongs the treatment duration for patients. In this regard, the search for new methods to optimize treatment is a pressing task.

Objective: Improving surgical access in the mandibular molar region to reduce surgical trauma.

Materials and methods. Conducted examination and surgical intervention of 21 patients with diagnoses: chronic apical periodontitis, root cyst. Patients were divided into two groups the study groups: group 1 (n=11) used a method with minimal trauma access, involving the formation of a bone block using a piezo-surgical apparatus, followed by its placement on the site. The peculiarity of this method is convergence of the angles during bone preparation in the direction of the removable object, which facilitates the separation of the bone fragment and its adaptation during transplantation. The inclusion criterion for patients in this group was the presence of a dense compact plate of the lower jaw in the area of the molars. In the 2nd group (n=10), access to the apical part of the roots was performed using the traditional method. The regimen and recommendations for patients after surgery were the same in both groups. Sutures were removed on the 7th day. Clinical assessment of the early postoperative period was carried out according to the following criteria: severity of pain syndrome using a visual analogue scale (VAS) on the 3rd and 7th days after surgery; the presence and degree of hyperemia of the mucous membrane of the marginal gingiva; severity of edema; divergence of sutures. To assess the immediate and remote results of surgical treatment, clinical and radiological (targeted intraoral radiography on the HelioDent Plus Sirona intraoral device with the XIOS Plus USB X-ray visiograph manufactured by SIRONA Dental Systems GmbH, Germany, SIRONA Dental Systems GmbH, Fabrikstrasse 31, D-64625 Bensheim, Germany) studies were conducted before



the operation, immediately on the 1st, 3rd, 7th day after it, 6 and 12 months after the surgical intervention. In patients of both groups, the densitometric bone density was determined before the operation, 6 and 12 months after the surgical intervention.

Results and discussion. After creating access to the apical part of the lower jaw molars using the traditional technique, a significant bone defect was noted, indicating the longest regeneration process in the surgical intervention area. The most intense pain was noted by patients in the control group in the first 3 days after surgery (range 5-6 points). It was in this group that a frequent need for painkillers was noted. The severity of edema in this group significantly prevailed over the study group. Pain syndrome in patients of the 1st group was noted on the day of the surgery and the next day (range 3-4 points). Analysis of targeted intraoral radiovisiography in the control group is 108 ± 5 units, indicating bone restoration in the surgical area, but its reduced density. In the study group - 137 ± 5 , which proves complete vascularization of the bone block and a slight decrease in bone density after surgery. According to the results of the study, patients in group 1 had the most favorable postoperative period. In the early and late postoperative period, no significant complications were observed in patients.

Conclusion. The introduction into clinical practice of an improved method of surgical access to the apical part of the roots of lower jaw molars allows to significantly reduce the risks of postoperative complications, shorten the treatment time and intensity of postoperative pain.

