



## 15. DECOMPRESSION - METHOD OF TREATMENT OF GIGANT CYSTS OF THE UPPER JAW. CLINICAL CASE.

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**Introduction.** Reaching large sizes, cysts located on the upper jaw often affect the neighboring anatomical formations, such as the maxillary sinus, the floor of the nasal cavity, penetrating them and thus affecting their function. During its invasive growth, the cyst affects the palate and neighboring vital teeth. The classical method of treatment - cystectomy has a number of shortcomings: during the operation communication with the maxillary sinus, nasal cavity, palatal, vestibular region of the alveolar process can be achieved, as well as it involves preliminary endodontic treatment of the teeth included in the cystic cavity and their apical resection. In order to avoid these shortcomings, firstly, the cyst can be treated by the decompression method until the volume of the cyst is reduced and the volume of the lost bone is restored, and then cystectomy can be performed without the danger of damaging the surrounding anatomical formations.

**Case statement.** Patient C., aged 25, went to the dental clinic "Omni Dent" for surgical treatment - extraction of the root of tooth 24. Clinical signs were not present. Paraclinical examination (OPG and CBCT) revealed an area of radiopacity - bone destruction. Preventive diagnosis was established - giant radicular cystic of tooth 24. The decision was made that the patient should be treated by the decompression method. A decompression device was manufactured according to the individual parameters of the patient with the help of CAD/CAM system and inserted to the patient at the place of extracted tooth 24. The decompression device consists of the tube, which through the socket of the extracted tooth enters into the cystic cavity, and the fins, with the help of which the device is fixed to the neighboring teeth. The patient was monitored according to certain criteria: size of the cyst, bone supply, vitality of the teeth, complications.

**Discussions.** The duration of decompression was 6 months, during which time the patient underwent lavage. The patient was monitored during decompression to assess volumetric changes of the cyst to determine the timing of cyst enucleation. Analyzing the given method according to the proposed criteria we can say that after 6 months of decompression: the cyst shrank in volume (from 4.83 cm<sup>3</sup> to 1.3 cm<sup>3</sup>); bone restoration occurred in the region of the nasal cavity, maxillary sinus and neighboring teeth; teeth remained vital, during treatment complications did not occur. Cystectomy with augmentation (Kolapol) was performed. After 6 months the patient underwent implant-prosthetic restoration with Megagen Anyone implant size 4.5x13. Although the duration of treatment is longer, the method of decompression reduces the risk of complications, such as perforation of the nasal cavity floor and maxillary sinus, and allows the vitality of the teeth included in the cyst to be preserved.

**Conclusion.** This method of treatment can be considered minimally invasive because the method of decompression of gigant cysts allows us to preserve the vitality of the teeth included in the cyst and reduces the risk of damage to surrounding anatomical structures. Due to the use of the decompression device for 6 months, the cystic cavity reduced in size, which facilitated the enucleation of the cyst and helped avoid intraoperative complications such as perforation of Schneider's membrane and nasal mucosa.