

THE EXPERIENCE OF TREATMENT OF PATIENTS WITH DIABETES MELLITUS AND SINUSITIS WITH OROANTRAL COMMUNICATIONS

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ABSTRACT

The percentage of odontogenic inflammatory processes in the maxillary sinus is big enough by comparing it to all inflammatory diseases of the paranasal sinuses, and varies according different data from 30% to 40%. (Bernadsky Y.I., Zaslavsky N.I.).

The reason of odontogenic sinusitis is a variety of microorganisms localized in the foci of dental infection: Enterococci, Staphylococci, Streptococci, Gram-positive and Gram-negative bacilli as a monoculture or different associations of these types of microorganisms.

The development of foci of chronic infection in the apical periodontium of the upper premolars and molars is accompanied by the bone tissue destruction that related to thinning of the bone layer separating the roots tips of these teeth from the maxillary sinus.

These circumstance and individual anatomical features of the upper jaw structure can cause perforation of the maxillary sinus bottom after tooth extraction. Sometimes it involves pushing the root of the tooth into the sinus or under the mucous membrane. The presence of an infected foreign body in the sinus leads to the development of a chronic inflammatory process with a high degree proliferative reaction of sinus's mucosa in the form of polyps. The same result can be caused after an endodontic filling material excess enters the sinus.

The process of development of odontogenic sinusitis in patients with different types of endocrine pathology attracts particular interest. Most frequent is diabetes mellitus. 12 patients with diabetes mellitus and odontogenic sinusitis with oroantral communications were treated by us during last 3 years. The base was Department of Oral and Maxillofacial Surgery that localizes on The Head and Neck Department of Kharkiv Regional Hospital. These patients had glucose ratio more than normal rate. After anamnesis collection and full preoperative examination patients had maxillary sinusotomy with plastic reconstruction of surgical access using mucoperiosteal flap from local tissues. Common patterns were identified in healing processes of postoperative wounds and engraftment of mucoperiosteal flap. Frequent complications in the postoperative period observed such as poor revascularization of the flap, especially when the flap was taken from the vestibular side of the oral cavity. If different types of bone grafting materials were used during the operation to isolate the bone defect, 80% cases had a rejection of the material with purulent melting of the flap. These patients had been needed to be re-operated on after elimination of the inflammatory process along with correction of blood glucose level in collaborations with endocrinologist.

The most favourable results in the postoperative period were observed in a group of patients with a decreased sugar level amounted less than 10 mmol/l (180 mg/dl), when plastic reconstruction of surgical access was made with mucoperiosteal flap from the hard palate without the bone grafting material usage. This fact might be related to the absence of fat layer in this flap but it needs further investigations to be confirmed.

To sum up the findings of our clinical observations, we would like to note the importance of careful collection of anamnesis of a patient's life, a full-fledged preoperative examination, as well as the selection of the correct method of surgical treatment and correction the glucose level in alliance with the endocrinologist.