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CRITERIA FOR DIAGNOSIS AND TREATMENT OF MAXILLARY SINUS CYSTS

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Abstract
Chronic cystic maxillary sinusitis (CCMS), which occupies one of the leading places on the list of chronic nasal pathologies. There is still no consensus on the modern approach to the diagnosis and treatment of cysts. In modern otorhinolaryngology, the problem of choosing an adequate treatment for chronic cystic maxillary sinusitis remains relevant. The purpose of our research isdevelopment of proposals and recommendations aimed at improving the surgical treatment of maxillary sinus cysts. The research work was based on an examination of 153 patients with chronic cystic maxillary sinusitis, who were divided into 2 groups depending on the presence of pathological changes in the ostiomeatal complex. All patients underwent an otorhinolaryngological examination, which consisted of an endoscopic examination of the nasal cavity and nasopharynx, pharyngoscopy, otoscopy and laryngoscopy, and multispiral computer tomografy of the paranasal sinuses. Surgical treatment for the removal of maxillary sinus cysts was carried out in one and two stages, as well as using three approaches, depending on the location of the cyst in the sinus. After performing surgical treatment, we carried out examinations and dressings, as well as recording changes in the clinical symptoms of the postoperative inflammatory process and the development of complications at different times in the postoperative period. When using a differentiated endoscopic method of cyst removal, the quality of treatment of maxillary sinus cysts significantly increases, the nature and number of undesirable results of surgical intervention changes.

Keywords: chronic cystic maxillary sinusitis, ostiomeatal complex, quality of life, endoscopy, paranasal sinuses

In rhinological practice, chronic cystic maxillary sinusitis (CCMS) is very common, occupying one of the leading places on the list of chronic nasal pathologies. Over the past 20 years, the incidence of this disease has doubled.Inflammation of the paranasal sinuses (PNS) is the most common disease in the structure of pathology of the ENT

organs. The origin of paranasal sinus cysts is usually associated with a chronic inflammatory process in the paranasal sinuses, and according to some authors, the etiology of PNS cysts is more related to allergies, so they are considered a manifestation of allergic sinusitis.Currently, there is no consensus on the symptoms of cysts observed in the maxillary sinuses, and this issue is becoming increasingly relevant and requires detailed study. Maxillary sinus cysts (MSC) are one of the most common pathologies of the middle third of the head. There is still no consensus on the modern approach to the diagnosis and treatment of cysts.In modern otorhinolaryngology, the problem of choosing an adequate treatment for chronic cystic maxillary sinusitis remains relevant.Today, the development of ways to increase the effectiveness of surgical treatment of maxillary sinus cysts is of particular importance.

Purpose of the study- development of proposals and recommendations aimed at improving the surgical treatment of maxillary sinus cysts.

Materials and research methods. The research work was based on an examination of 153 patients with chronic cystic maxillary sinusitis (CCMS), who applied to the clinic of OOO "Golden medical group", in the period from 2018-2023. All patients underwent surgical treatment. When assessing the patient's quality of life, one of the main complaints was headache, 98% of patients reported this complaint, 70% of patients complained of nasal discharge. Weakness was detected in 61% of patients. 34.5% of patients reported a feeling of discomfort in the maxillary sinuses. In 78% of patients, swelling of mucus along the posterior wall of the nasopharynx and oropharynx was detected. All patients underwent an otorhinolaryngological examination, which consisted of an endoscopic examination of the nasal cavity and nasopharynx, pharyngoscopy, otoscopy and laryngoscopy, and MSCT of the paranasal sinuses.

All patients underwent computed tomography, which was performed on a Siemens Somatom Sensation Cardiac device (Germany). The study was performed in axial, coronal and sagittal projections. Computed tomography data has become an important navigation material for the most accurate, gentle and safe surgical interventions. In most cases (n=131 86%) unilateral lesions of the maxillary sinuses were detected.

The study was carried out in different groups, divided according to the localization of the cyst in the upper jaw, as well as the presence of pathological changes in the ostiomeatal complex (OMC). Among such changes, changes were identified such as

curvature of the nasal septum in the form of a ridge at the level of the middle concha, bullous hypertrophy or curved middle concha, hypertrophy of the ethmoidal bladder, anomalies of the uncinate process, the presence of Galer cells and an additional anastomosis of the maxillary sinus. Based on these data, we divided all patients into 2 large groups. Group A included patients with pathological changes in the circulatory system (n=87), and group B without pathological changes in the structures of the circulatory system (n=66). Each of the groups in turn was divided into subgroups 1, 2 and 3 depending on the location of the cysts in the maxillary sinus. Thus, groups A1 (n = 51) and B1 (n = 37) included patients with a cyst located on the lower wall of the upper joint. Groups A2 (n=29) and B2 (n=19) with cysts located on the posterior wall of the MS. Groups A3 (n=7) and B3 (n=10) on the anterior and upper walls of the MS (Fig. No. 1) .

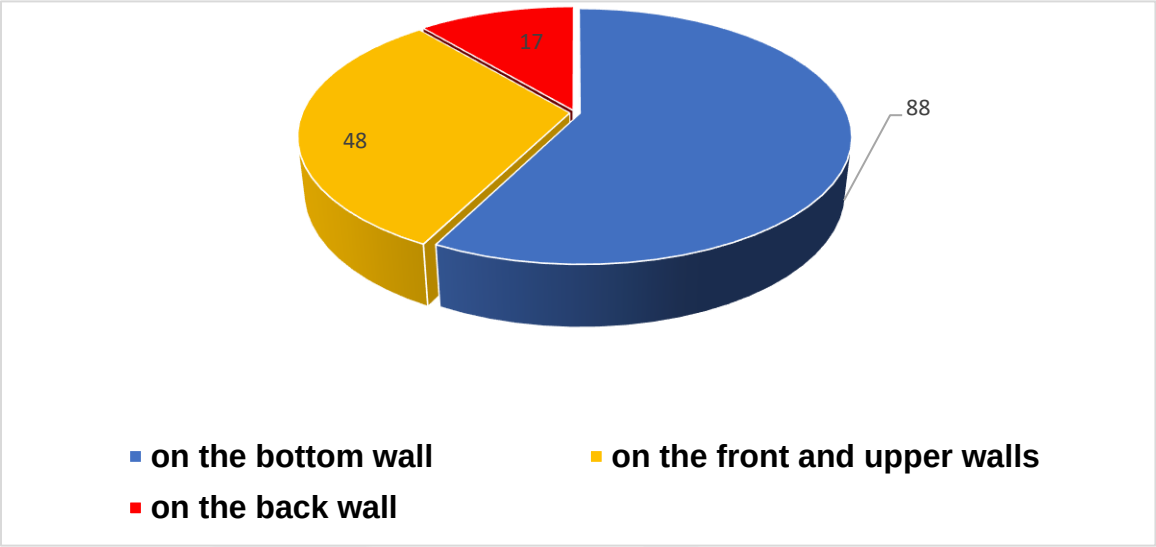

Figure 1. Localization of the cyst in the maxillary sinus

Clinical trial results All patients underwent surgical treatment to remove the cyst. The surgical procedure was performed under endotracheal general anesthesia and additional local or local infiltration anesthesia.

For patients in group A (n=87), the surgical intervention consisted of 2 stages, the first consisted of correction of intranasal structures and pathological changes in the ostiomeatal sinus (partial resection of the middle concha, uncinate process, merging the additional anastomosis with the main one, opening of Haller's cells). At the second stage, the maxillary sinus was opened depending on the location of the cyst. Patients from group B (n=66) underwent only the second stage of surgical intervention.

When cysts were localized on the lower wall of the umbilical joint, patients of groups A1 and B1 underwent opening of the sinus using our improved technique through the lower nasal meatus. Our technique consisted in the following: after breaking and luxation, medialization of the inferior nasal concha, _____| a shaped incision of soft tissue on the lateral wall of the lower nasal meatus. The soft tissues were separated with a rasp, the bone wall was exposed, and an anastomosis was created with a bur. After visualization of the cysts with an endoscope, they were removed using forceps. The sinus was washed with warm saline. Upon completion of the manipulations in the sinus, a syntomycin tampon was installed in the lower nasal passage, which was removed after 1-2 days.

When the cysts were localized on the posterior wall of the maxillary sinus, patients of groups A2 and B2 underwent opening of the sinus through the anterior wall of the MS. Patients from groups A3 and B3 underwent dissection of the maxillary sinus through the middle meatus.

Our treatment was carried out using endoscopic optics of 2.7 and 4 mm, with a viewing angle of 00, 300, 450 and 700; video equipment and basic tools.

After surgical treatment, we carried out examinations and dressings, as well as recording changes in the clinical symptoms of the postoperative inflammatory process at different times in the postoperative period (up to 2 years).

On days 7-10 after surgical interventions, the maxillary sinus was washed with warm saline solution with the addition of an antibiotic, antiseptic and proteolytic enzyme. On day 30, after 3, 6 and 12 months, endoscopic and X-ray examination of the maxillary sinus was carried out. If necessary, fibrin films and cords, crusts and scabs were removed after coagulation. All patients received antibiotic therapy depending on the result of bacteriological culture with determination of sensitivity to a particular antibiotic. As a local desensitizing therapy, a local glucocorticoid drug of combined action Rialtris was prescribed for a period of one to 2 years. The composition of the drug Rialtris includes mometasone furoate and olopatadine; these active ingredients are representatives of 2 different classes of drugs (synthetic glucocorticosteroid and Hi-histamine receptor antagonist).

As a result of our study, we identified the following complications in our patients: trigeminal neuropathy, cyst recurrence, suppuration of the maxillary sinus, a feeling of heaviness in the area of the anterior wall of the sinus, adhesions in the middle and lower nasal passages (Table No. 1).

Table 1. Presence of complications in patients after surgery.

	Types of complications	group A			group B		
		A1	A2	A3	B1	B2	B3
1	Trigeminal neuropathy (2nd branch)	-	3	-	-	5	-
2	Cyst recurrence	-	-	1	-	-	1
3	Sinus suppuration	-	1	-	1	-	-
4	Feeling of heaviness in the projection of the HF	-	3	-	-	2	-
5	Formation of adhesions in the nasal passages	2	-	3	1	-	2

Conclusions

The choice of tactics for surgical treatment of maxillary sinus cysts, of course, should always remain with the operating surgeon. A comparison of the results of our study on the choice of surgical intervention suggests that with different locations of cysts in the maxillary sinus, it is necessary, in our opinion, to choose a tactic that will provide better visualization of the cyst in the sinus and less trauma. When using a differentiated endoscopic method, the quality of treatment of maxillary sinus cysts significantly increases, the nature and number of undesirable results of surgical intervention changes.

References

1. Adxamovich X. A. et al. The Diagnosis and Treatment of Paranasal Sinus Cysts //Genius Repository. – 2023. – T. 26. – C. 23-29.
2. Esankulovich K. H., Taxinovna N. M. About specific endonasal extraction of cysts of the maxillary sinus //Central Asian Journal of Medical and Natural Science. – 2021. – T. 2. – №. 2. – C. 201-204.
3. Capra G. G., Carbone P. N., Mullin D. P. Paranasal sinus mucocele //Head and neck pathology. – 2012. – T. 6. – C. 369-372.
4. Giotakis E. I., Weber R. K. Cysts of the maxillary sinus: a literature review //International forum of allergy & rhinology. – 2013. – T. 3. – №. 9. – C. 766-771.
5. Karpishchenko S. A. et al. Tactics for managing patients with cysts of the maxillary sinuses. – 2022.
6. Kryukov A. I. et al. Retention cysts: a new approach to treatment //Vestnik otorinolaringologii. – 2019. – T. 84. – №. 3. – C. 22-25.
7. Kryukov A. I. et al. Features of the histological structure shell of the maxillary sinus cyst with various diseases of the nasal cavity and paranasal sinuses //Vestnik Otorinolaringologii. – 2021. – T. 86. – №. 4. – C. 50-53.

8. Moon I. J. et al. Mucosal cysts in the paranasal sinuses: long-term follow-up and clinical implications //American journal of rhinology & allergy. – 2011. – T. 25. – №. 2. – C. 98-102.
9. Nasretdinova M. T. et al. Tactics of Administration of Patients with Chronic Atrophic Rhinitis //Annals of the Romanian Society for Cell Biology. – 2021. – C. 147-151.
10. Nasretdinova M. et al. Principles of treatment of polypous rhinosinusitis // Journal of the Doctor's Bulletin. – 2014. – T. 1. – No. 3. – pp. 169-171.
11. Pierse J. E., Stern A. Benign cysts and tumors of the paranasal sinuses //Oral and Maxillofacial Surgery Clinics. – 2012. – T. 24. – №. 2. – C. 249-264.
12. Vokhidov U. N., Butaev A. Sh. Treatment of maxillary sinus cysts // interdisciplinary approach to diseases of the head and neck organs. – T. 329.