



OPTIMIZATION OF THE SURGICAL ACCESS METHOD FOR MAXILLARY SINUS CYSTS

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Annotation

The aim of the study was to increase the efficiency of surgical treatment of maxillary sinus cysts by improving extranasal access. Under our supervision, there were 50 patients with a diagnosis of "maxillary sinus cyst" undergoing planned surgical treatment. All patients underwent a comprehensive examination, including examination of ENT organs, endoscopy and computed tomography. Patients were divided into 2 groups. The 1st group underwent traditional surgery according to Caldwell-Luc. The 2nd group of patients underwent surgery, taking into account the location of the maxillary sinus cysts. In patients of the 1st group, on the 5-6th day, its intensity according to the results of the assessment using VAC was 3.1 ± 1.0 points, in patients of the 2nd group the pain disappeared on the 3rd day, the intensity of the pain was 2.2 ± 0.6 points. The study showed that extranasal access to the maxillary sinus through the alveolar region allows you to completely remove the cyst, restore the mucous membrane of the maxillary sinus and minimize the likelihood of relapse.

Keywords: cystic sinusitis, maxillary sinus, endoscopy, extranal access.

ОПТИМИЗАЦИЯ МЕТОДА ХИРУРГИЧЕСКОГО ДОСТУПА ПРИ КИСТАХ ВЕРХНЕЧЕЛЮСТНОЙ ПАЗУХИ

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Аннотация

Целью исследования явилось повышение эффективности хирургического лечения кист верхнечелюстной пазухи путём совершенствования экстраназального доступа. Под нашим наблюдением было 50 пациентов с





диагнозом «киста верхнечелюстной пазухи», проходивших плановое хирургическое лечение. Всем больным было проведено всестороннюю обследование, включающее осмотр ЛОР-органов, эндоскопию и компьютерную томографию. Больные были разделены на 2 группы. 1-ой группе было проведено традиционное хирургическое вмешательство по Калдуэлю-Люку. 2-ой группе больных было проведено хирургического вмешательство с учётом расположения кист верхнечелюстной пазухи. У больных 1-ой группы на 5–6-е сутки ее интенсивность по результатам оценки с помощью ВАШ составляла $3,1 \pm 1,0$ балла, у пациентов 2-ой группы болевые ощущения исчезли в 3 день интенсивность боли составила $2,2 \pm 0,6$ балла. Исследование показало, что экстраназальный доступ к верхнечелюстной пазухе через альвеолярную область позволяют полностью удалить кисту, восстановить слизистую оболочку верхнечелюстной пазухи и свести к минимуму вероятность рецидива заболевания.

Ключевые слова: кистозный гайморит, верхнечелюстная пазуха, эндоскопия, экстраназальный доступ.

Relevance

Inflammation of the maxillary sinuses (MS) is the most common disease in the structure of pathology of ENT organs. The consistently high incidence of acute respiratory viral infections, the irrational use of antibacterial drugs and the constantly deteriorating environment determine the annual increase in the number of patients with chronic sinusitis by 1,5-2,0% [1, 3, 7, 12, 14]. One of the forms of chronic productive inflammation of the MS is its cystic lesion. The prevalence of maxillary sinus cysts (MSC) is 18.1% of the total number of patients with pathology of the paranasal sinuses [2, 4, 6, 8]. According to morphological features, there are true (retention), false (cyst-like formations), dental and cysts associated with malformations. The leading role in the development of true cysts is assigned to recurrent inflammation, which cause persistent stenosis of the excretory ducts of the glands of the mucous membrane of the MS. Retention cysts have clear morphological features that distinguish them from false and odontogenic cysts - the wall of the true cyst is lined with a ciliated cylindrical epithelium from the outside and from the inside [9, 10, 13]. Unlike other forms of productive inflammation of the paranasal sinuses, therapeutic tactics for cystic MS lesions are determined by the clinical manifestations of the disease. Thus, only symptomatically significant MSC are subject to surgical treatment [5, 6, 11]. To date, three main surgical approaches have been developed to





the affected MS: uncinatotomy with and without the formation of an antrostomy in the middle nasal passage, access through the anterior (facial) wall of the MS by Caldwell-Luke and antrotomy in the lower nasal passage. Modern medical technologies allow the treatment of chronic sinusitis with minimal trauma to the "travel" tissues. The developed minimally invasive methods of surgical treatment of chronic sinusitis are designed to reduce the risk of postoperative complications and shorten the rehabilitation of patients. But, despite this, the question of the advantages and disadvantages of various methods of removing MSC remains controversial, which has not yet found a generally accepted solution [7, 10].

The extranasal approach provides a good overview of the surgical field, allows you to reliably remove the cyst from all parts of the sinus, however, it is accompanied by injury to the soft tissues of the face and pain in the projection of the intervention in the postoperative period. With the advent of endoscopic techniques, surgeons began to remove cysts through the natural junction of the maxillary sinus in the middle nasal passage. This technique avoids injury to the anterior wall of the sinus, but in some cases does not provide adequate visual control of the complete removal of cyst shells when the latter is located in the area of the alveolar pocket and the anterior wall of the sinus, and also leads to a violation of the complex architectonics of the middle nasal passage. Trying to avoid the disadvantages of the above methods, recently there have been more and more reports about the removal of cysts through the lower nasal passage. This approach combines all the advantages of the above methods: it does not affect the anterior wall of the sinus, gives a good overview of hard-to-reach parts, allows you to preserve the anatomy in the area of the maxillary sinus junction [4, 11]. The use of operations on the maxillary and frontal sinuses with plastic surgery defects of the anterior walls, helps to eliminate the shortcomings of extranasal operations. Many of the materials used have a good cosmetic, functional effect, make it possible to exclude the sinking of soft tissues into the trepanation cavities, preserve the anatomical relief of the sinuses and their pneumatization, but at the same time there remains a high risk of infection of the graft and surrounding tissues, the possibility of prolapse of the plate into the sinus. In addition, due to the lack of materials, tools necessary for their implementation, and often complex execution techniques, these operations are not widely used in practice [12]. In this regard, the choice of tactics of surgical treatment of MSC is relevant.

The purpose of the work:

To increase the effectiveness of surgical treatment of MSC by improving the external access.





Material and methods of research

Under our supervision there were 50 patients diagnosed with "maxillary sinus cyst" undergoing elective surgical treatment in the ENT department of the multidisciplinary clinic of the Tashkent Medical Academy aged 18 to 60 years. All patients with other concomitant diseases of the paranasal sinuses were excluded. All patients underwent a comprehensive examination, including an examination of ENT organs, endoscopy and computed tomography. The patients were divided into 2 groups. Group 1 underwent traditional Caldwell-Luke surgery. The 2nd group of patients underwent surgical intervention according to our method, taking into account the location of maxillary sinus cysts. The extranasal access of the operation we proposed included: During the operation on the maxillary sinus in the vestibule of the oral cavity, a vertical incision of soft tissues was made at the level of 4 teeth of the upper jaw (first premolar), with a special boron, a hole was formed in the area of the canine fossa with a diameter of 0.8 – 1 cm or more (depending on the pathological findings), the resulting round remnant of the bone wall was left to close the wound, the cystic fluid was removed with a syringe, an incision was made in the puncture area and the cystic membrane was pulled out and removed with suction, a thrombin film was placed on the wound and the wound was closed with a bone residue, subsequently a suture was placed on the wound. Using a visual analog scale (VAS), the average severity of pain in the area of surgical intervention in the early postoperative period was determined. The objective assessment took into account the presence of swelling of the nasal mucosa, discharge and crusts, the severity and duration of facial edema in the projection of the maxillary sinus, changes in sensitivity, as well as the need for postoperative care of the vestibule of the oral cavity. 1 month after the operation, the dynamics of complaints was evaluated, as well as monitoring the presence / absence of recurrence of the disease due to incomplete removal of the cyst. The digital material obtained as a result of the research was subjected to statistical processing.

The results of the study and their discussion

The results of the comparative analysis showed that the pain in the area of surgical intervention was mainly complained by patients of the 1st group (with an approach through the dog pit): on the 5th-6th day, its intensity according to the results of the assessment with the help of VAS was 3.1 ± 1.0 points. In group 2 patients operated through the alveolar region, pain disappeared on day 3, the pain intensity was 2.2 ± 0.6 points.





When comparing the indicators of the duration of restoration of the function of the nasal mucosa were the same. Patients had postoperative mucosal discharge in the nasal cavity for 2 days, edema and crusts were not observed.

In group 1, an additional factor affecting the convalescence of patients was the need for additional care for the suture line in the area of the mucous membrane of the transitional fold of the upper lip (rinsing the oral cavity with antiseptic solutions, prohibition of the use of irritating, solid products, etc.). According to our data, by the 14th day, all patients had resorption of threads (catgut was used) and the formation of a thin scar that does not require additional care from medical personnel. On average, swelling in the buccal region in patients of this group decreased for 14 days. It should be noted that 1% of patients had a loss of sensitivity in the soft tissues of the cheek 1 month after surgery, which adversely affected their well-being. In patients of the 2nd group, the above symptoms disappeared in 7-10 days, and there were no postoperative complications in the form of numbness of the buccal region.

Patients of group 1 who had persistent complaints of headaches 6 months after surgery (n=2) were recommended to perform computed tomography of the paranasal sinuses. Examination of 2 patients did not reveal any pathology of the sinuses, in connection with which they were offered observation by a neurologist about complaints of headaches.

Conclusion

Thus, extranasal access to the maxillary sinus through the alveolar region allows you to completely remove the cyst, restore the mucous membrane of the maxillary sinus and minimize the likelihood of recurrence of the disease.

References

1. Shahnoza Azamatovna Alimova (2021). ETIOPATOGENETIC FEATURES OF OTITIS MEDIA IN PATIENTS WITH HIV INFECTION. *Scientific progress*, 2 (5), 66-73.
2. Обиджон Олимжонович Жахонов (2022). БОЛАЛАРДА АЛЛЕРГИК РИНИТ БИЛАН БИРГА КЕЧУВЧИ АДЕНОИДИТНИНГ КЛИНИК КЕЧИШ ХУСУСИЯТЛАРИ. *Scientific progress*, 3 (2), 1037-1042.
3. Obidjon Olimjonovich Jahonov (2022). IMMUNOLOGICAL ASPECTS OF TRANSMITTED ADENOIDITIS IN CHILDREN WITH ALLERGIC RHINITIS. *Scientific progress*, 3 (4), 48-51





4. Firangiz Suleymanovna Ikramova (2021). FUNCTIONAL STATE OF LOCAL IMMUNE STATUS IN INFLAMMATORY PROCESS IN THE MIDDLE EAR IN CHILDREN. *Scientific progress*, 2 (5), 82-86.
5. U. I. Nurov, F. S. Ikramova, Sh. A. Alimova Functional status of immune status in inflammatory diseases of the paranasal sinuses in twin children // *Academic research in educational sciences*. 2021. №5.
6. НУРОВА Г.У., КАРАБАЕВ Х.Э. THE USE OF APPARATUS «FOTEK» IN THE SURGICAL TREATMENT OF VASOMOTOR RHINITIS // MATERIALS OF THE XV INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE CONDUCT OF MODERN SCIENCE - SHEFFIELD 2019; P: 97-102.
7. Firangiz Suleymanovna Ikramova (2021). TACTICS OF TREATING ALLERGIC RHINITIS WITH CHRONIC DIFFUSE DISEASES OF THE LIVER. *Scientific progress*, 2 (7), 1247-1252.
8. U.I.Nurov, S.S. Arifov Content of phagocytic activity of monocytes and neutrophils in twin children with inflammatory diseases of the paranasal sinuses *International Journal of Pharmaceutical Research*, 2020
9. NUROVA G.U., KARABAEV X.E. MODERN SMALL INVASIVE METHOD OF SURGICAL TREATMENT OF VASOMOTOR RHINITIS. // INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE «CUTTING EDGE-SCIENCE»- SHAWNEE, USA 2020- P. 53.
10. Shaxnoza Azamatovna Alimova (2022). ЭТИОПАТОГЕНЕТИЧЕСКАЯ ХАРАКТЕРИСТИКА СРЕДНЕГО ОТИТА У ВИЧ ИНФИЦИРОВАННЫХ ПАЦИЕНТОВ. *Scientific progress*, 3 (1), 198-207.
11. Ulugbek Nuridinovich Vokhidov, Khusniddin Noriddinovich Nuriddinov Analysis of the frequency of distribution and treatment methods for polypous rhinosinusitis *Journal of Biomedicine and Practice* Volume 4 Issue 5. 2020
12. Nurova, G. U., and U. I. Nurov. "The current state of study of vasomotor rhinitis modern diagnostic and therapeutic methods" *American journal of medicine and medical sciences-USA* 10.4 (2020).
13. X. H. Нуриддинов ЭНДОСКОПИЧЕСКАЯ КАРТИНА ПРИ ПОЛИПОЗНОМ РИНОСИНУСИТЕ // *Scientific progress*. 2022. №4.
14. X. H. Нуриддинов СУРУНКАЛИ ПОЛИПОЗ РИНОСИНУСИТНИ ЭНДОСКОПИК ТАШХИСЛАШ ВА ДАВОЛАШ НАТИЖАЛАРИНИНГ ТАҲЛИЛИ // *Scientific progress*. 2022. №4. URL: