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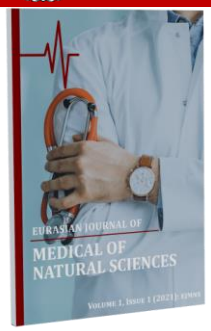

TREATMENT METHODS AND THEIR EFFECTIVENESS IN PATIENTS WITH POLYPOSIC RHINOSINUSIS IN MODERN MEDICINE

Khushvakova Nilyufar Jurakulovna
Head of the Department of Otorhinolaryngology №.1, Samarkand State Medical University, Doctor of Medical Sciences, Professor
Shamatov Islam Yakubovich
Senior Lecturer of the Department of Otorhinolaryngology №.1, Samarkand State Medical University
Esanov Aslbek Alisher ugli
Khojiev Azizjon Bakhrimurad ugli
Gaybullaev Rasulbek Bakhodir ugli
Clinical residents of Samarkand State Medical University
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ABSTRACT

This article discusses the prevalence of polypoid rhinosinusitis, pathological manifestations of the nasal cavity and paranasal sinuses, and their treatment methods. The word "polyp" itself (from the Greek poly - many and purulent leg) is a general term used to designate pathological formations similar to various tumors that protrude from the surface of the mucous membranes of organs such as the gastrointestinal tract, respiratory and urinary tracts, uterus. The article presents the forms of occurrence and treatment of various diseases in patients, from benign tumors to hyperplastic formations of an allergic or inflammatory nature, in which polyps are not the same in etiological, pathogenetic and morphological terms. In addition, information is provided on the indicators of diseases, treatment methods of polyps of the nasal cavity and paranasal sinuses, based on analyzes and examples.

МЕТОДЫ ЛЕЧЕНИЯ И ИХ ЭФФЕКТИВНОСТЬ У БОЛЬНЫХ ПОЛИПОЗНЫМ РИНОСИНУСОМ В СОВРЕМЕННОЙ МЕДИЦИНЕ

Хушвакова Нилюфар Журакуловна
Заведующий кафедрой Оториноларингологии №1 Самаркандского государственного медицинского университета, доктор медицинских наук, профессор
Шаматов Ислам Якубович
Старший преподаватель кафедры оториноларингологии №1 Самаркандского государственного медицинского университета
Эсанов Аслбек Алишер угли
Хожиев Азизжон Бахримурод угли
Гайбуллаев Расулбек Баходир угли
Клинические ординаторы Самаркандского государственного медицинского университета
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ABSTRACT

В статье рассматриваются распространенность полипозного риносинусита, патологические проявления со стороны полости носа и околоносовых пазух, а также методы их лечения. Само слово «полип» (от греч. poly — много и pus — ножка) — это общий термин, используемый для описания различных опухолевидных патологических образований, выступающих над поверхностью слизистых оболочек таких органов, как желудочно-кишечный тракт, дыхательные и мочевыводящие пути, матка. В статье представлены закономерности возникновения и методы лечения у больных с различными заболеваниями: от доброкачественных опухолей до гиперпластических образований аллергического или воспалительного характера, при которых полипы неодинаковы по этиологии, патогенетическим и морфологическим признакам. Кроме того, на основе анализов и примеров дана информация о показателях заболеваний и методах лечения, связанных с полипами в полости носа и околоносовых пазухах.

ZAMONAVIY TIBBIYOTDA POLIPOZ RINOSINUSIT BILAN KASALLANGAN BEMORLARDA DAVO USLUBLARI VA ULARNING SAMARADORLIGI

Xushvakova Nilyufar Jurakulovna
Samarqand davlat tibbiyot universiteti 1-son Otorinolaringologiya kafedrasi mudiri, tibbiyot fanlari doktori, professor
Shamatov Islom Yakubovich
Samarqand davlat tibbiyot universiteti 1-son Otorinolaringologiya kafedrasi katta o'qituvchisi
Esanov Aslbek Alisher o'g'li
Xojiev Azizjon Baxrimurod o'g'li
G'aybullaev Rasulbek Baxodir o'g'li
Samarqand davlat tibbiyot universiteti klinik ordinatorlari
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ABSTRACT

Ushbu maqolada polipoid rinosinusit kasalligining tarqalishi burun bo'shlig'i va burun oldi yon bo'shliqlarning patologik ko'rinishlar va ularning davo uslublari to'g'risida fikr yuritilgan. "Polip" so'zining o'zi (yunoncha poliy - ko'p va yiringli oyoq) - bu oshqozon-ichak trakti, nafas olish va siydik chiqarish yo'llari, bachadon kabi a'zolarning shilliq pardalari sathidan bo'rtib turadigan, har xil o'smalarga o'xshash patologik shakllanishini belgilash uchun ishlatiladigan umumiy

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atama hisoblanadi. Maqolada poliplar etiologik, patogenetik va morfologik nuqtai- nazardan bir xil bo'lmagan, yaxshi sifatli o'smalardan allergik yoki yallig'lanishli tabiatning giperplastik shakllanishiga qadar bo'lgan turli xil kasalliklarning bemorlardagi uchrash shakllari va davo uslublarini ko'rish mumkin. Bundan tashqari burun bo'shlig'i va burun oldi yon bo'shliqlarning poliplarida uchraydigan kasalliklar ko'rsatkichlari, davolash usullari to'g'risida tahlillar va misollar asosida ma'lumotlar berilgan.

Introduction. Treatment of patients with polypous rhinosinusitis is one of the unsolved problems of modern rhinology. Despite the variety of treatment methods used, it is difficult to achieve recovery of patients, since the disease is prone to relapse. Among the theories of the origin and development of polypous rhinosinusitis, infectious-allergic, autoimmune, neuro-trophic, etc. are quite widespread. The role of mycotic, bacterial and viral sensitization in the development of chronic rhinosinusitis and nasal polyps, BYoB has also been studied.

Therefore, depending on the type of surgical intervention performed, questions arise regarding the management of patients with chronic polypous rhinosinusitis in the postoperative period.

Polypous rhinosinusitis is one of the most important problems in otolaryngology, comparable in terms of quality of life reduction with such diseases as bronchial asthma, chronic obstructive pulmonary disease, angina, hypertension. The disease is characterized by the growth of polyps in the nasal cavity and paranasal sinuses. For a long time, polypous rhinosinusitis was considered as a single disease, and therefore, it was not possible to accurately establish the etiology and pathogenesis.

Currently, polypous rhinosinusitis is considered as a heterogeneous group of diseases manifested by chronic inflammation of the mucous membrane of the nasal cavity and paranasal sinuses, its remodeling and recurrent growth of polyps. Polypous rhinosinusitis is divided into 2 groups or 2 endotypes depending on the prevalence of different populations of T-lymphocytes, cytokines, ILC. There are 3 main types of immune response: Type 1 is characterized by the predominance of the Th1, Tc1 population, innate lymphoid cells ILC1, cytokines INF-γ, TNF-α. Type 2 is caused by lymphocytes Th2, Tc2, ILC2, cytokines IL-4, IL-5, IL-13. Type 3 is caused by lymphocytes Th17, Tc17, ILC3, cytokines IL-8, IL-17, IL-22.

The main type of inflammation leading to the growth of polyps in the Caucasian population is type 2 inflammation. However, biopsy studies show that lymphocytes of all populations can be found in one polyp, which allows us to talk about mixed infiltration.

Relevance. Chronic polypous rhinosinusitis is currently one of the most common diseases, with the incidence of polypous rhinosinusitis ranging from 3.2 to 5.2 per 10,000 population. Among paranasal sinus diseases, nasal and paranasal sinus polyps are relatively common.

The main method of treating polypous rhinosinusitis is surgery. The scope of surgical treatment varies, from loop or shaver polypotomies, which remove polyps growing directly in

the nasal cavity, to "radical" operations such as Full-house and Reboot, which, in addition to opening all paranasal sinuses, remove not only polyps, but also the mucous membrane.

However, no matter how extensive the surgical intervention, up to 80% of patients experience a relapse within 1 year. Therefore, patients should take basic therapy, which includes intranasal corticosteroids, and in case of insufficient effectiveness, courses of systemic corticosteroids, which quickly relieve symptoms, but have significant side effects.

The main indication for the appointment of biological therapy are severe forms of polypous rhinosinusitis. Firstly, the patient must have a proven predominant type 2 inflammation - an increase in eosinophils in the peripheral blood and nasal mucosa, an increase in IgE, an eosinophilic phenotype of bronchial asthma. Secondly, these are patients who have repeatedly undergone surgical operations, receive basic therapy with intranasal corticosteroids, requiring courses of systemic corticosteroids, that is, those patients for whom treatment with standard regimens does not lead to disease control.

Purpose of the work. Taking this into account, we have developed and implemented three options for comprehensive treatment of patients with this pathology.

Sources and methods of verification. The first group consisted of 30 people aged 14 to 50 years. 14 women and 16 men. 10 patients were diagnosed with bilateral chronic polypous ethmoiditis, 10 patients were found to have it combined with polypous sinusitis, 7 patients had chronic hypertrophic rhinitis along with polypous ethmoiditis, and 3 had nasal septum deviation. The disease was primary in 9 patients, and recurrent in 21 patients, including 6 patients with one relapse, 8 patients with 2-3 relapses, and 7 patients with 1-12 relapses. A two-stage ethmoidotomy was performed in all patients and a local anti-inflammatory, hyposensitizing effect was applied mainly to the area of the lateral nasal cavities. Given the specific anatomical structure of this area, a simple ethmoidotomy was performed in the first stage, and after 4-5 days, under endoscopic control, the maximum amount of polypous tissue was carefully removed from the cells and walls from where it had grown (second stage). In the postoperative period, for the treatment of postoperative rhinosinusitis, a hydrogel coating called "chitoxin-gel" with an interleukin-1-V (RAIL) receptor antagonist was applied to the area of the opened cavities, which contains a composition with anti-inflammatory and antiallergic effects: Prednisolone, Aminocaproic acid, Calcium chloride, Diphenhydramine, Kalanchoe juice.

The next day, after removing the tampons from the nose and BYoB, external phonophoresis with 9% Hydrocortisone ointment is prescribed for the area of the ethmoidal and maxillary cavities, alternating with endonasal electrophoresis with 5% Calcium Chloride and 1% Diphenhydramine solutions. To increase the body's resistance, a total course of treatment of 20 ml of Sodium Nucleinate was used per os (orally) daily for 18 months.

The second group consisted of 40 patients aged 20 to 60 years, including 16 women and 24 men. 13 of them had bilateral chronic polypous ethmoiditis, 10 had maxillary ethmoiditis, and 10 had chronic hypertrophic rhinitis and nasal obstruction in addition to polypous ethmoiditis. In 5 patients, polypous ethmoiditis and hyperoethmoiditis were detected for the first time, and in 35 patients, the disease was recurrent, including 9 of them, relapsed for the first time, 8 - 2-3 times, 11 - 4-5 times, and 7 - 6-10 times.

In this group of patients, ethmoidotomy and hyperoethmoidotomy were performed, and on the 4-5th day after the operation, cryodestruction of the postoperative cavity and polypous mucosal remnants in the nose was performed using the cryoapplication method developed by us using the “KUA 02” apparatus. The third group included 30 people under 65 years of age, 16 of whom were women and 14 were men. Of these, 10 patients were diagnosed with polypous ethmoiditis, 6 had the disease combined with polypous sinusitis, 9 patients had chronic hypertrophic rhinitis along with polypous sinusitis, and 5 patients had nasal septum deviation. The disease was diagnosed for the first time in 4 patients, and in 26 patients it was recurrent, including 7 patients with first-time relapses, 5 with 2-3 relapses, 8 with 4-5 relapses, 6 with 10 relapses, and 1 with more than 10 relapses.

Research results. As can be seen from the above clinical description, the course of the main disease and the characteristics of the concomitant pathology in the nasal cavity in all three groups of patients were almost identical. In the third group of patients, in order to reduce the reactivity of the parasympathetic nervous system, reduce allergic changes in the nasal mucosa, and improve tissue trophism, Novocain blockade of the vesical nerve was performed in the subzygo-pterygoid area in the postoperative period. For this, the center of the proorbital line was determined and an injection was made from this area. The needle is inserted into the surrounding tissue (with continuous injection of Novocain) until it is fixed on the outer plate of the pterygoid septum, then it is returned halfway back and directed anteriorly at an angle of 12-19 ° so that it falls into the pterygoid fossa, where the vesical nerve passes, and is again injected until the fixation occurs. 5 ml of 2% Lidocaine solution is injected on both sides.

Long-term results after treatment in all groups were analyzed after 12-18 months. To compare the effectiveness of the treatment methods used, a 2-year (2015-2017) archival data analysis was conducted, the medical histories of 50 patients with polypous ethmoiditis and treated only surgically (ethmoidotomy) were studied, and it was noted that relapses were observed in the patients already in the first year after surgery.

In the first group of patients, relapses occurred only in 36.6% of cases, including 26.6% of cases of polypous changes in the mucous membranes, which we considered as an early sign of the relapse process, and in 10% of cases, small polyps that did not interfere with nasal breathing were detected. In the second group, recurrence of the polyposis process was detected in 44.8% of observations, including 24.2% of polyposis-changed mucous membranes, 20.65% - small polyps in the nasal cavity and postoperative maxillary sinuses. However, after 2 years, relapses of the disease occurred in 48.3% of those examined, including small polyps that did not interfere with nasal breathing - in 22.2% of cases.

A significant decrease in the body's sensitization to microbial antigens and polyposis tissue in the first group of patients led to a significant decrease in the rate of relapses of polyposis sinusitis in them over a certain period of time. The decrease in the number of relapses can be explained, apparently, by the fact that the cryodestruction procedure reduces the hypersensitivity of the whole organism and the polyposis-changed mucous membranes of the nasal cavity. The decrease in the number of relapses in patients in the third group is associated with changes in the body, which are not reflected in the manifestation of the leukocytolytic reaction.

Conclusion. Thus, in the treatment of polypous ethmoiditis and hyperoethmoiditis, the complex treatment options offered by us reduce the recurrence rate of the disease. However, the dynamics of changes in the patient's sensitization to microorganisms and polypous antigens confirms that in the postoperative period it is advisable to combine surgical intervention under general anesthesia with the use of shaver surgery and the introduction of anti-inflammatory drugs into the nasal mucosa using ultrasound and electrophoresis. In patients who have undergone endonasal surgery, the use of "Chitoxin-gel" wound dressings in the postoperative period, together with RAIL, allows you to correct the level of cytokines in the nasal secretion and, accordingly, control acute local inflammation, which, in turn, leads to a rapid return of subjective symptoms, a decrease in reactive symptoms and a reduction in hospitalization periods.

References:

1. Гуломов З.С., Симбирцев А.С., Варюшина Е.А. Иммунотерапия в торириноларингологии. //Аллергология и иммунология. - 2006. - Т. 7. - №3. - С. 285.
2. Исламов Ш.Э., Шаматов И.Я., Шодиев А.Э., Шербеков Б.Э. Дефекты оказания медицинской помощи в практике оториноларингологии.// «Достижения науки и обазования ISSN 2413-2071 N 4(2020/58) V.50-53
3. Карпищенко С.А., Рабова М.А., Шумилова Н.А. «Сравнительная оценка биологических эффектов лазерного излучения, радиоволновой аппаратуры и электроножа «Folia Otorhinolaringologiae et Parhlogiae Respiratoriae»» //- 2011 y. -vol.17. №2-С. 55-64
4. Колбанова Н.Г. «Эффективность комплексного лечения полипозного и полипозно-гнойного риносинуситов у больных бронхиальной астмой»: // автореферат.дисс… кан.мед.наук, - М 2006-25с
5. Лавреиова Г.В., Симбирцев А.С., Тараканова Е.Н. Роли фагоцитов в неспецифическом клеточном иммунитете у больных гнойным риносинуситом. //Российская оториноларингология. - 2009. - №3. - С. 76-80.
6. Шаматов И.Я., Хушвакова Н.Ж., Бурханов У.М. Эндоскопическая ультразвуковая дезинтеграция при гипертрофическом рините с одновременной коррекции устья слуховых труб. // Биология ва тиббиет муаммолари – N 3 (111) 2019 –Р.143-144.
7. Шаматов И.Я. Применение фонофареза новокаина при лечение хронического риносинусита «Профилактик тиббиетда юқри инновацион технологияларни куллаш» мавзусидаги республика илмий-амапрррпплий анжумани материаллари. 2020г –С.313
8. Шарипова Э.Р., Арефьева Н.А., Азнабаева Л.Ф. Перспективы применения рекомбинантных цитокинов в лечении гнойных риносинуситов. //Российская ринология. - 2009. - №2. - С.23-24
9. Asaka Daiya Nobuyoshi Risk factors for complications of endoscopic sinus surgery for chronic rhinosinusitis / Daiya Asaka, Tsuguhisa Nakayama, Ta-kanori Hama [et al.] //American J. of Rhinology & Allergy, V. 26 (1), 2012 , p. 61-64(4).
10. Chobillon M.A. What are the advantages of the endoscopic canine fossa approach in treating maxillary sinus aspergillomas? / M.A. Chobillon, R. Jankowski //Rhinology. - 2004. - V. 42(4). - P.230-235.

11. Lennard C.M. Interleukin-1 beta, interleukin-5, interleukin-6, inter-leukin-8, and tumor necrosis factor-alpha in chronic sinusitis: response to systemic corticosteroids / C.M. Lennard, E.A. Mann, L.L. Sun [et al.] // Am. J. Rhinol. -2000. - V. 14 (6). - P. 367-373.
12. Шаматов И.Я., Хушвакова Н.Ж., Бурханов У.М. Эндоскопическая ультразвуковая дезинтеграция при гипертрофическом рините с одновременной коррекции устья слуховых труб. // Биология ва тиббиет муаммолари – N 3 (111) 2019 –P.143-144.
13. Шаматов И.Я. Применение фонофареза новокаина при лечение хронического риносинусита «Профилактик тиббиётда юқори инновацион технологияларни қўллаш» мавзусидаги республика илмий-амалий анжумани материаллари. 2020г –С.313
14. Шаматов, И. Я., Хушвакова, Н. Ж., & Бурханов, У. М. (2019). Эндоскопическая ультразвуковая дезинтеграция при гипертрофическом рините с одновременной коррекции устья слуховых труб. *БИОЛОГИЯ ВА ТИББИЁТ МУАММОЛАРИ PROBLEMS OF BIOLOGY AND MEDICINE ПРОБЛЕМЫ БИОЛОГИИ*, 144.
15. Шаматов, И. Я., Хушвакова, Н. Д., Шодиев, А. Э., & Курбанов, Э. Х. (2019). Комплексное лечение хронического риносинусита в стадии обострения. *Re-health journal*, (2), 5-10.
16. Yokubovich, S. I., Sharipovna, I. F., & Jurakulova, H. N. (2021). New Approaches in the Treatment of Odontogenic Sinusitis. *Central Asian Journal of Medical and Natural Science*, *2*(2), 57-60.
17. Шаматов, И. Я., Хушвакова, Н. Ж., & Исхакова, Ф. Ш. (2019). КОМПЛЕКСНОЕ ЛЕЧЕНИЕ ОСТРЫХ ЛАРИНГИТОВ. *Сборник научных статей по итогам работы Международного научного форума*, *98*.
18. Шаматов, И. Я., Хушвакова, Н. Ж., & Исхакова, Ф. Ш. (2019). КОМПЛЕКСНОЕ ЛЕЧЕНИЕ ОСТРЫХ ЛАРИНГИТОВ. *Сборник научных статей по итогам работы Международного научного форума*, *98*.
19. Бахронов, А. Р., Хушвакова, Н. Ж., Болтаев, А. И., & Шаматов, И. Я. (2014). Применение комбинированных антисептиков в лечении острого фарингита. *Вестник Казахского Национального медицинского университета*, (2-3), 14-15.
20. Шаматов, И. Я., Болтаев, А. И., & Расулова, М. Р. (2022). ИММУНОБИОХИМИЧЕСКИЕ СДВИГИ ПРИ СЕЗОННОЙ БИЦИЛЛИНОМЕДИКОМЕНТОЗНОЙ ПРОФИЛАКТИКЕ ХРОНИЧЕСКИХ ТОНЗИЛЛИТОВ В САНАТОРНЫХ УСЛОВИЯХ. In *Проблемы постковидной оториноларингологии* (pp. 284-286).
21. Хушвакова, Н., Шаматов, И., Хамракулова, Н., & Усманов, Ш. (2018). Роль озонотерапии в лечении экссудативных гайморитов. *Журнал проблемы биологии и медицины*, (1 (99)), 124-126.
22. Шодиев, С., Шаркиев, А., Аббосов, О., Фозилова, Д., & Шаматов, И. (2016). Усовершенствование лечения альвеолитов лунок зубов. *Stomatologiya*, *1*(2-3 (63-64)), 54-57.
23. Sabirova, M. M., Akhmedzhanov, I. A., & Shamatov, I. (1991). Errors in the diagnosis of a foreign body in the pharynx of a three-month old child. Vestnik Otorinolaringologii, (4), 60-60.
24. Sabirova, M. M., Rustamova, B. A., & Shamatov, I. (1991). Unusual cases of esophageal foreign bodies. Vestnik Otorinolaringologii, (2), 78-78.