



Features of the Course of Rhinosinusitis in Patients with Allergies

1. **Khaydarova Gavkhar Saidakhmatovna**

2. **Ahmedova Ziyodakhon Anvar qizi**

Received 2nd Mar 2022,
Accepted 3rd Apr 2022,
Online 17th May 2022

Annotation: Allergic rhinitis or allergic rhinosinusitis is characterized by paroxysms of sneezing, rhinorrhea and nasal congestion, often accompanied by itching of the eyes, nose and palate, postnasal drip syndrome (a combination of clinical symptoms caused by irritation of the mucous membranes of the back wall of the pharynx and larynx with catarrhal or purulent discharge from the nasal cavity or adnexal sinuses), cough, irritability and fatigue are other common symptoms.

Key words: Allergic rhinitis, inflammatory disease, rhinosinusitis, hypoallergenic.

¹ Doctor of medical Sciences, associate professor Departments of Otorhinolaryngology and Dentistry Tashkent Medical Academy

² Basic doctoral student of the Tashkent Medical Academy

The term "rhinosinusitis" is relatively young. It was introduced into circulation in the mid-90s of the last century by specialists from the American Academy of Otolaryngology Head and Neck Surgery (American Academy of Otolaryngology, Head and Neck Surgery) [2,3,4]. Academy staff also proposed a definition, a list of major and minor symptoms, as well as a classification option for the disease. In the future, the very definition of RS and their classifications were expanded and refined by various expert groups, including specialists from the European Academy of Allergology and Clinical Immunology (European Academy of Allergology and Clinical Immunology) and Infectious Disease Society of America, IDSA (Infectious Diseases Society of America) [1,5,10]. The collective experience of clinicians has been further summarized in a variety of papers and practice guidelines.

Rhinosinusitis in an adult is defined as an inflammatory process in the nasal mucosa and paranasal sinuses characterized by 2 or more symptoms. The main symptoms include: nasal congestion due to edema of the mucous membrane and obstruction of the nasal passages, and discharge from the anterior and posterior sections of the nasal mucosa [2,4,8,10]. Minor symptoms include pain or a feeling of pressure in the face, decreased or loss of smell, the presence of purulent mucous discharge, especially from the middle nasal passage, nasal polyps, obstruction of the nasal passages due to edema of the mucous membrane, as well as pathological changes in the mucous membrane detected on computed tomography (CT) within osteomeatal complex and sinuses. In children, cough is usually added to the listed symptoms [3,6,8].

The relevance of the problem of rhinosinusitis (RS) is becoming increasingly important due to the increase in the incidence, especially among people of young working age. RS are among the most common diseases, as evidenced by the results of numerous evidence-based studies that are regularly conducted in various countries (Lopatin A.S., Ivanchenko O.A. 2015). Criteria for accounting for morbidity and algorithms for diagnosing and treating RS differ significantly from each other.

According to the US National Center for Disease Statistics, a survey of patients showed that about 15% of them had chronic rhinosinusitis symptoms (Krivopalov A.A. 2016). At the same time, statistical data based on patient referrals give lower rates, according to which only 2% of applicants are diagnosed with chronic rhinosinusitis in accordance with the ICD-10 recommendations (Fokkens W.J. 2014). The number of cases of chronic rhinosinusitis, which are confirmed by endoscopic examination and CT data, is even lower.

According to the latest revision of the 2012 European Position Paper on Rhinosinusitis and Nasal Polyps (EPOS) Guidelines for the Treatment of Acute and Polypous Rhinosinusitis, RS in adults is defined as an inflammatory process in the mucous membrane lining the nasal passages and paranasal sinuses, characterized by two or more features. In general, the concept of "acute rhinosinusitis" covers a wide range of different nosologies: from a banal acute respiratory viral infection (ARVI) to a severe bacterial infection. RS is the most common ENT disease in both adults and children. At the same time, it is never the initial link in the chain of pathological changes and most often develops as a result of SARS (Amilia H.H., Rosli M.N. 2018).

The purpose of the study: To study the clinical and functional features of rhinosinusitis and develop a methodology for their optimal correction.

The study was conducted on the basis of the II Clinic of the Tashkent Medical Academy. The study included 70 patients with RS. Based on the collection of complaints, data from the anamnesis of the disease and clinical and laboratory studies, the etiology of the disease was established. According to the etiology of the disease, the patients were divided into 2 study groups: the main group 1 - 40 patients (18 men (45%) and 22 women (55%), mean age 34 ± 1.2 years) with RS of allergic etiology and the main group 2 - 30 patients (18 men (60%) and 12 women (40%), mean age 26 ± 1.5 years) with RS of bacterial etiology. The control group consisted of 30 patients (15 men (50%) and 15 women (50%), mean age 21 ± 1.1 years) who underwent a routine medical examination and showed no signs of pathology of the nasal cavity and paranasal sinuses. .

Research methods.

1. Rhinoscopy. To examine the vestibule of the nose I, with the finger of the right hand, lift the tip of the nose. This technique is often used when examining young children, who, due to fear, do not allow the instrument to be inserted into the nose. Normally, the vestibule of the nasal cavity is free, its walls are covered with hair. Anterior rhinoscopy is performed alternately on one and the other halves of the nose, a nasal dilator is used, which allows you to raise the wings of the nose and thus make the nasal cavity accessible for illumination and examination. The size of the nasal dilator depends on the age of the patient. In early childhood, it is convenient to use an ear funnel to examine the nasal cavity.
2. The SNOT-22 test includes 22 points that take into account the typical symptoms of RS on a 6-point scale characterizing the degree of symptom manifestation: "0" points corresponds to the minimum, "5" - severe symptom activity.
3. Radiography. To overcome projection distortions and superimpose structures, various projections are used: naso-chin, naso-frontal, lateral and axial. During the inflammatory process, the mucous membrane undergoes significant changes. In acute inflammation, it is infiltrated, edematous, its thickness sometimes increases by 15-20 times. Cysts can form in the edematous and thickened

mucosa. In patients with chronic inflammation of the paranasal sinuses due to severe hyperplasia and serous impregnation, diffuse hypertrophy or polypous degeneration of the mucous membrane is observed. The decrease in sinus pneumatization observed on the x-ray, up to their “blackout”, can be due to various reasons: the presence of a pathological secret in the sinuses, swelling of the mucous membrane, the formation of cysts, polyps, and a tumor process.

4. Computed tomography. Compared with classical X-ray techniques, CT allows not only to obtain a simultaneous image of the bone and soft tissue structures of the nasal cavity and paranasal sinuses, but also to study the details of the structure of the osteomeatal complex zone, as well as to assess the spread of the pathological process into the orbits and the cranial cavity. The study of computed tomograms of the paranasal sinuses allows you to create an image of their spatial construction, while the difference in the density of individual tissues is extremely clearly recorded: bone, mucous membrane, fluid. The method makes it possible to judge the nature of anatomical disorders and their influence on the development of the pathological process, is an important tool in planning the scope of surgical intervention and facilitates the orientation of the surgeon during the operation. The presence of preoperative computed tomography helps the surgeon avoid unnecessary interventions on intact sinuses and carefully plan the course of the upcoming operation.

5. Qualitative method for assessing the sense of smell. The method is based on the use of several odorants well known to most people, the standard solutions of which are arranged in ascending order of odor strength:

- 0.5% acetic acid solution (low odor);
- pure wine alcohol (smell of medium strength);
- Valerian tincture (strong smell);
- ammonia alcohol (super-strong smell, at the same time causes irritation of the branches of the trigeminal nerve).

Solutions of odorous substances are in bottles of the same size and shape, indicated by numbers. The subject is closed one nostril and offered to sniff the other half of the nose with a piece of filter paper soaked in the solution. With the perception of all odors - the sense of smell of the I degree, medium and stronger odors - the sense of smell of the II degree, a strong smell - of the III degree. If a person differentiates only the smell of ammonia - IV degree of decrease in smell (anosmia).

Results of own research

Comparative evaluation of the effectiveness of the intensity of manifestations of clinical symptoms

Symptom	Main group 1 (n=40)	Main group 2 (n=30)	Control group (n=30)
(in points)	6,94±0,18*^	6,16±0,24^	3,46±0,14
Difficulty in nasal breathing	6,35±0,21*^	6,62±0,22^	2,12±0,12
Discharge from the nose	4,89±0,26*^	3,93±0,32^	1,93±0,21
Decreased sense of smell	3,92±0,27*^	4,81±0,28^	1,22±0,17

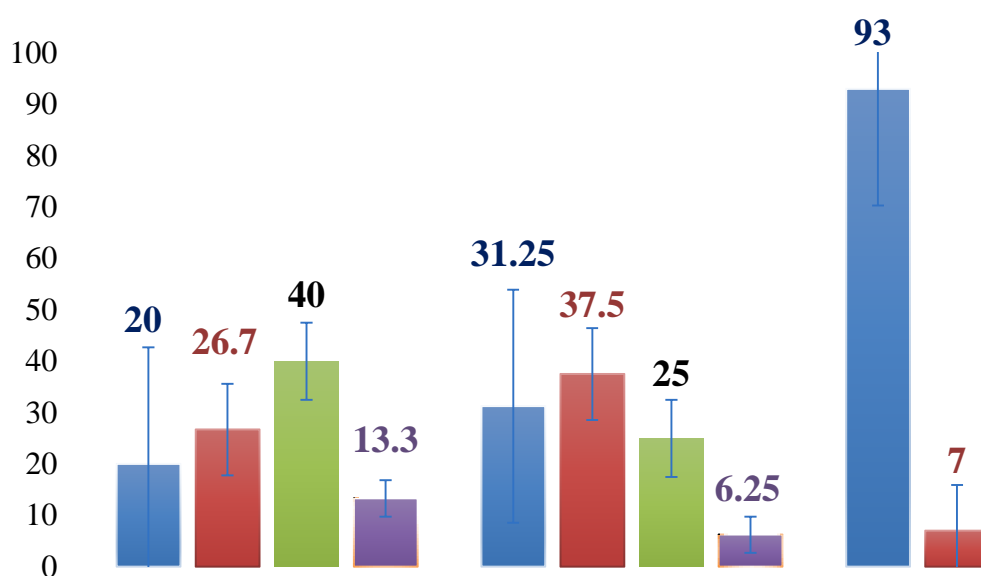
*Reliable in relation to the data of the main group 2 ($p < 0.05$).

^Significant in relation to the data of the control group ($p < 0.05$).

Comparative evaluation of anatomical indicators

Indicator	Main group 1 (n=40)		Main group 2 (n=30)		Control group (n=30)	
	abc	%	abc	%	abc	%
Deformation of the nasal septum	9	30	20	62,5	4	13,3
Hypertrophy of the inferior turbinates	10	33,3	3	9,4	-	-
Hypertrophy of the middle turbinates	8	26,7	2	6,2	-	-
Nasopharyngeal hypertrophy tonsils	2	6,7	5	15,7	-	-
	29	96,7	30	93,8	4	13,3

The results of assessing the transport function of the ciliated epithelium based on the results of the saccharin test are shown in Figure 1. According to the saccharin test, in patients with allergic myrhinosinuitis, a decrease in the transport function of the ciliated epithelium was observed, which was manifested by an increase in the time interval from the moment saccharin powder was applied to the surface of the inferior turbinate until a sweet taste appeared during mouth on average up to 28 minutes.



Main group 1 Main group 2 Control group

Figure 1. Assessment of olfactory function.

Symptoms that have the most negative impact on the quality of life of patients with RS of allergic etiology after 1 year of observation were: sneezing - in 15 (75%) patients, nasal discharge (runny nose) and nasal congestion - in 12 (60%) patients, rhinorrhea - in 11 (55%) patients, postnasal drip — in 9 (45%) patients. Symptoms leading to discomfort due to RS of allergic etiology at 1 year of follow-up were: nasal congestion and rhinorrhea — in 14 (70%) patients, nasal discharge — in 15 (75%) patients, postnasal mucus leakage — in 11 (55 %) people, decreased sense of smell/appetite — in 8 (40%) patients.

CONCLUSION.

Several common classifications of clinical forms of rhinosinusitis have been proposed. The most relevant and common forms of rhinosinusitis are bacterial and allergic. Etiological factors in both cases trigger a chain of pathophysiological changes in the mucous membrane of the nose and paranasal sinuses, which subsequently leads to the development of anatomical and functional disorders in both complexes and concomitant clinical symptoms.

Without a doubt, knowledge of the exact pathogenetic foundations of the disease is the basis for the competent selection of therapy for patients with rhinosinusitis.

LITERATURE:

1. Karneeva O.V., Polunina T.A. Modern features of the course and treatment of rhinosinusitis in children. // Issues of modern pediatrics - 2009 - VOLUME 8 - No. 4 - S. 136-140.
2. Krivopalov A.A. Definitions, classifications, etiology and epidemiology of rhinosinusitis (literature review). // Russian rhinology - 2 - 2016 - C. 39-45.
3. Lopatin A.S., Ivanchenko O.A., Soshnikov S.S. Comparative study of the effectiveness of various treatment regimens for chronic rhinosinusitis. // Russian rhinology - №2 - 2015 - pp. 47-56.
4. Kryukov A.I., Gurbanov F.A. Pathogenetic therapy of allergic rhinosinusitis at the present stage. Russian otorhinolaryngology, 2010, 5(48): 25-29.
5. Lopatin A.S., Gamov V.P. Acute and chronic rhinosinusitis: etiology, pathogenesis, clinic, diagnosis and principles of treatment: Textbook for the system of postgraduate prof. education of doctors. M.: MIA, 2011. 72 p.
6. Nikiforova G.N., Volkova K.B., Svistushkin V.M. The place and significance of modern antihistamines in the treatment of allergic rhinitis. RMJ, 2015, 23: 1395-1398.
7. Lopatin A.S. Rhinitis: a guide for physicians. M.: GEOTAR-Media, 2010. 417 p.
8. Tataurshchikova N.S. Desloratadine is a modern effective treatment for allergic rhinitis. Farmateka, 2013, 10: 66-68.
9. Svistushkin V.M., Grinev I.A., Stetsyuk O.U., Andreeva I.V. Recommendations for the management of adult patients with acute rhinosinusitis: is there a consensus? Attending doctor. 2012;(11):9096.
10. Strachunsky L.S., Kamanin E.I., Tarasov A.A. Antibacterial therapy for sinusitis. Guidelines for clinicians. Clinical microbiology and antimicrobial chemotherapy. 1999;1(1):8388.
11. Abdulkirimov Kh.T., Garashchenko T.I., Koshel V.I., Ryazantsev S.V., Svistushkin V.M. Principles of etiopathogenetic therapy of acute sinusitis. Ed. Ryazantseva S.V. St. Petersburg: Poliforum Group; 2013.