



## IMPORTANCE OF INDICATORS OF NITROXIDERGIC SYSTEM IN IMPROVING THE TREATMENT OF ACUTE AND CHRONIC PURULENT SINUSITIS

**Lutfullaev Umrullo Lutfullaevich**

Doctor of Medical Sciences, Professor

**Raximov Farrux Farxodovich**

master

**Buriyev Shamsiddin Akmalovich**

**Abdumannobov Jaloliddin G'olibovich**

**Mardonov Xoshim Xayrullaevich**

clinic residents

Samarkand State Medical University, Samarkand, Uzbekistan

<https://doi.org/10.5281/zenodo.11409702>

### ARTICLE INFO

Qabul qilindi: 20-May 2024 yil

Ma'qullandi: 25-May 2024 yil

Nashr qilindi: 31-May 2024 yil

### KEY WORDS

*Nitrosidergic system, use of nitrosidergic means, sinusitis, acute sinusitis, purulent and infectious sinusitis, paranasal sinusitis.*

### ABSTRACT

*In this article, an understanding of sinusitis, a topic relevant in today's medicine, is given, and detailed information is also given about their treatment methods. In addition, examples of new treatment measures are provided.*

Inflammation of the paranasal sinuses is known as paranasal sinusitis. It is the most common disease affecting the ENT organs. When it gets difficult, the natural technique to get rid of the secretions inside the cavity is to inflame the nasal cavities. The process is done in multiple nasal cavities at the same time. Polysinusitis is the term used to describe inflammation of the paranasal sinuses on one side (hemisinusitis) and pansinusitis, which is the term used to describe inflammation of all adjacent nasal cavities.

**Etiology.** After potential injuries, an infection that originates in the teeth, nasal cavity, or other purulent foci spreads to the paranasal cavity. The disease is largely caused by the bacterial flora, which includes both gram-positive and gram-negative bacteria, pneumococci, hemolytic streptococcus, Haemophilus influenzae, Moraxella catarrhalis, Staphylococcus aureus, and hemolytic streptococcus. bacilli, occasionally adenoviruses, fungus, influenza and parainfluenza viruses. The germs Mycoplasma pneumoniae and Chlamydia pneumoniae are to blame. Sharp, sinusitis frequently has the same bacteria found in it, whereas chronic sinusitis has a different microbiome. The degree of both innate immunity and acquired immunity has a crucial role in the progression of the illness. Infections near the nose, such as diphtheria, scarlet fever, and measles, can migrate into the oral cavity hematogenously. In this instance, the discharge has an odd odor, which is typically caused by anaerobic microorganisms. In this instance, sinusitis is chronic and won't go away until the broken tooth is fixed.

The nasal cavity's size and shape play a significant role in the disease's development; the

larger the cavity, the more likely it is that the process will progress and cause inflammation. The maxillary cavity, which is comparatively more inflamed, is the largest of the neighboring cavities and is located in the nose. It is more difficult to remove the pathological separation in the upper jaw cavity into the nasal cavity because the natural entry of the jaw cavity to the middle nasal channel is placed above the cavity. Acute sinusitis can arise as a consequence of various infectious disorders, including but not limited to influenza, measles, scarlet fever, wounds, and tuberculosis. Nose and nose injuries include diverse paranasal sinus injuries, foreign things in the nasal cavity, and safe and harmful malignancies. The causes of chronic sinusitis include weakened local and systemic immunity, bacterial allergies, auto-allergies, hypertrophy of the middle and lower nasal conchas, nasal septum curvature, nasal tumors from the paranasal sinuses, and difficulty clearing pathological discharge.

Pathological anatomical changes associated with acute sinusitis include swelling, infiltration, and redness of the cavity's mucous membrane. In certain regions, there is an accumulation of neutrophils, eosinophils, lymphocytes, and epithelial layer migration. The mucous membrane lining the nasal cavity walls becomes pimple-prone when serous, mucous, purulent, hemorrhagic, fibrinous, or mixed exudate builds up in the cavity. Proliferation processes in connective tissue, lymphocyte, neutrophil, and plasma cell infiltration, as well as the development of inflammatory tumors and polyps, are the primary causes of chronic sinusitis. The diagnosis. When a patient has paranasal sinus illness, they are examined as follows:

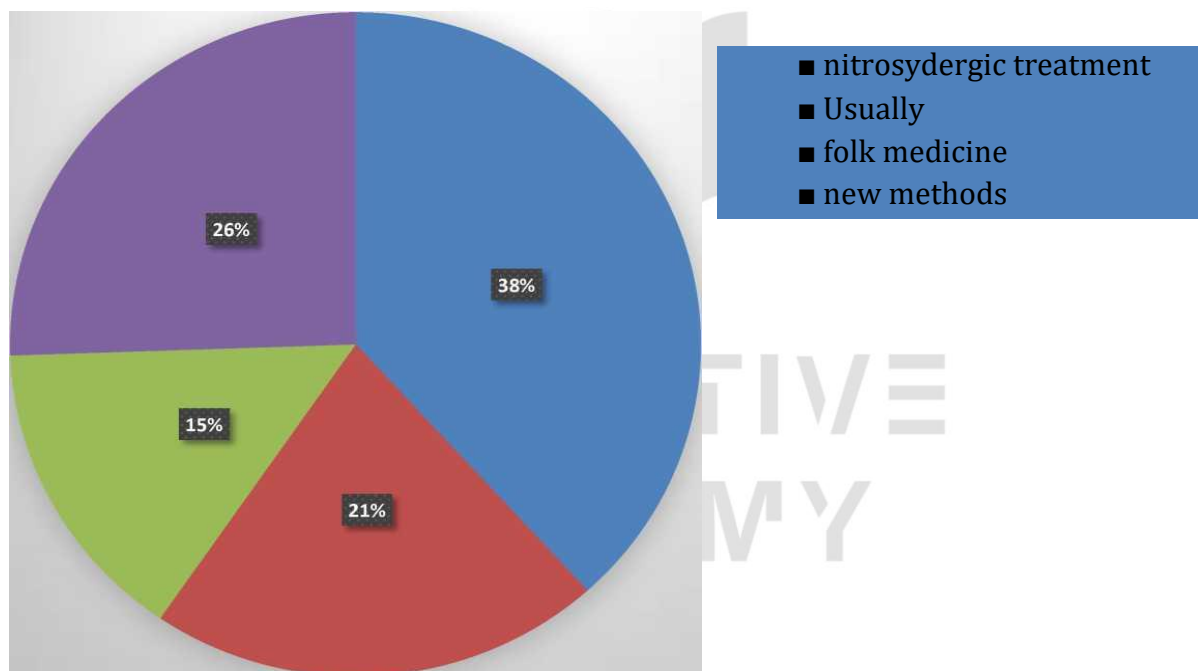
- Analysis of patient complaints and anamnesis data;
- General clinical and biochemical analyses, otorhinolaryngological examination (front and back rinoscopy, examination of the function of the nose and adjacent nasal cavities);
- Bacteriological and virological, allergological examination of cavity separation;
- Endoscopic examination (endophotography), if necessary, sinusoscopy;
- Biopsy and cytological examination (according to the instructions);
- X-ray examination of nasal cavities, including contrast by substance;
- Computed tomography (CT), magnetic resonance imaging (MRT) (required at birth);
- Diagnostic (treatment) of the forehead, forehead and upper jaw cavities sensing;
- Piercing the upper jaw cavity for diagnostic purposes (according to the instructions).

When there is inflammation in the nearby nasal cavities, other procedures are used. X-ray examination is a common procedure. In addition to the X-ray examination, CT and MRI tests are conducted in both axial and coronary orientations. The MRI examination aids in identifying the soft tissue structures of the organ under examination if the CT scan enables mapping the layers of the organ and determining its density and structure. The test carried out with the aid of the nasal cavity inflammation is frequently utilized in determining a wide range of ultrasonic waves (1.5-10 mGs). Examining the nose using modern endoscopy and endophotography enables you to observe the intricate anatomy of surrounding areas.

In practical applications, rigid and flexible optical devices with various viewing angles such as endoscopes, fiberscopes, and microscopes. These assessments include nose and nose Early detection of inflammatory processes and alterations is aided by pathological findings that are not apparent during routine inspections of nearby regions. Verify if you already have. The air chambers in the bone beneath your cheeks, eyebrows, and jaw are called sinuses. They produce mucus, which is a fluid that purges the air you breathe of germs and other particles.

Mucus is swept out of your sinuses by microscopic hairs called cilia (pronounced "sill-ee-ah") so that it can exit through your nose. A headache, fever, nasal congestion, decreased perception of taste and smell, a painful or constricted forehead, cheeks, nose, and area between the eyes, halitosis (poor breath), a nighttime cough, and toothaches are some of the symptoms.

Sinus infection when a bacterial or viral infection causes sinusitis. Sometimes getting a sinus infection follows a cold. Your sinuses' lining is attacked by the cold virus, which makes them swell and constrict. More mucus is produced by your body in response to the infection, but it becomes clogged in your swollen sinuses. Bacteria thrive in this accumulation of mucous. Sinus infections can be brought on by the bacterium. Variations in air pressure or temperature may be the cause of this. Sinusitis can result from allergies. Sinusitis can also result from smoking, swimming, diving, and excessive use of decongestant nasal sprays. Polyps, or "pawl-ips," are growths that obstruct the sinus passages in certain individuals and result in sinusitis. The following diagram shows the share of sinusitis treatment methods today.



The etiology of sinusitis determines how you treat it. A variety of over-the-counter drugs might assist with symptom relief. To help remove congestion and cleanse your nasal passages, you might use a saline nasal spray. A nasal spray that is prescribed by your doctor may be suggested to treat inflammation. Patients suffering from chronic sinusitis or rhinitis find relief with saline sinus rinses.

You can utilize any number of other commercial items that are available, such as the Neti Pot. A decongestant may aid in nasal drainage if you have pressure or pain in your sinuses. In general, decongestants should only be used temporarily. Headache and sinus pain can be relieved by over-the-counter pain medicines including acetaminophen (Tylenol) and ibuprofen (Advil, Motrin). Your doctor may prescribe an antibiotic if your sinusitis is extremely acute and they believe bacteria is the culprit. An antibiotic may be used for 10 to 14 days, but you will typically feel better a few days into the course of treatment. Antibiotics

should be taken exactly as prescribed by your doctor, and you should keep taking them until they are finished. Even when you start feeling better, it's crucial to take antibiotics exactly as prescribed by your doctor and to keep taking them until the infection is fully gone. If your sinusitis is being caused by allergies, your doctor may treat the allergy. After that, the sinusitis normally goes away on its own.

#### References:

1. Tursunovna, A. K. (2024). A THEORETICAL APPROACH TO THE INTERPRETATION OF LEXICAL UNITS OF TRANSLATOR, A GUIDE-TRANSLATOR AND A TOUR GUIDE. *Western European Journal of Linguistics and Education*, 2(4), 209-214.
2. Алимова, К. (2020). Feature of the guide-translator's rhetoric. in *Library*, 20(4), 242-245.
3. Алимова, К. (2024). Features of the speech of male and female translation guides. *Зарубежная лингвистика и лингводидактика*, 2(2), 85-90.
4. Алимова, К. (2021). Гид-таржимон нутқида риториканинг ахамияти. in *Library*, 21(4), 39-42.
5. Tolkinovich, U. J. (2023). Hazrati Imom (Hastimom) Me'moriy Majmuasinig Qayta Tiklanishi.
6. Tolkinovich, U. J. (2023). ARCHITECTURAL PRINCIPLES OF SHRINES IN UZBEKISTAN. *Open Access Repository*, 4(3), 1060-1064.
7. Tolkinovich, U. J. (2023). THE LEVEL OF SEISMIC RESISTANCE OF RESIDENTIAL BUILDINGS IN ARCHITECTURE. *Open Access Repository*, 4(03), 141-147.
8. Tolkinovich, U. J. (2023). MONUMENTS INCLUDED IN THE UNESCO LIST IN HISTORICAL CITIES OF UZBEKISTAN. *Open Access Repository*, 4(3), 1048-1053.
9. Tolkinovich, U. J. (2023). REPAIR AND RESTORATION OF ARCHITECTURAL MONUMENTS. *Open Access Repository*, 4(3), 1054-1059.
10. Tolqinovich, O. J. (2022). Modern Residential Buildings in the Historical Part of Samarkand Formation of Modern Typology. *European Journal of Life Safety and Stability* (2660-9630), 13, 87-92.
11. O'Sarov, J. T. L. (2022). TURARJOY BINOLARINI QAYTA TIKLASH VA SHAKLLANTIRISH MUAMMOLARI. *Scientific progress*, 3(2), 96-101.
12. Tolqinovich, O. J. (2022). Architecture of Traditional Residential Buildings in Historical Cities of Uzbekistan. *EUROPEAN JOURNAL OF BUSINESS STARTUPS AND OPEN SOCIETY*, 2(1), 65-69.
13. Tolqinovich, O. J. (2022). IT Has Not Been Saved to US in Bukhara" Madrasah's Cure". *EUROPEAN JOURNAL OF BUSINESS STARTUPS AND OPEN SOCIETY*, 2(2), 9-13.
14. Qazaqovna, K. M. (2024). HEUTAGOGY: UNLEASHING LEARNER AUTONOMY AND SELF-DIRECTED LEARNING: AN IN-DEPTH EXPLORATION. *Galaxy International Interdisciplinary Research Journal*, 12(1), 302-305.
15. Xidirova, M., & Abduvahobov, S. (2023). THE ROLE OF PHYSICAL CULTURE IN THE FORMATION OF PERSONAL CHARACTERISTICS. *Modern Science and Research*, 2(12), 397-400.
16. Ergasheva, S. A. (2021). History of baisun silk knitting factory. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(5), 581-585.
17. Ergasheva, S. A. (2020). CRAFT OF SURKHANOAKH FROM THE HISTORY OF DEVELOPMENT. *Theoretical & Applied Science*, (7), 56-59.

18. Ergasheva, S. A. (2020). The history of surkhan doppies (skullcups) and the characteristics of this folk craft. American Journal of Social and Humanitarian Research, 1(6), 7-13.
19. Abdusoatovna, E. S. (2023). SURXONDARYO VILOYATI IQTISODIY RIVOJLANISHIDA BOYSUN AN'ANAVIY HUNARMANDCHILIGINING O 'RNI. PEDAGOGS jurnali, 31(1), 10-17.
20. Abdusoatovna, E. S. (2023). The Role of Crafts in the Economy of Surkhan Oakh (In the Example of Cosibility).

