IJCNP, Volume 2, Issue 11, 2024 ISSN: 2995-536X
https://medicaljournals.eu/index.php/IJCNP

INTERNATIONAL JOURNAL OF COGNITIVE NEUROSCIENCE AND PSYCHOLOGY

SINUSITIS TREATMENT METHODS, MODERN DIAGNOSIS, MODERN APPROACH TO SINUSITIS TREATMENT

Ubaydullaev Rustam
Assistant, Department of Clinical Pharmacology, Samarkand State Medical University

Abstract: Sinusitis is an inflammation of the mucous membrane covering the inner walls of the maxillary sinus. Paranasal or maxillary sinuses - cavities in the thickness of the upper jaw bone on both sides of the nose. The sinuses perform several functions: they warm and moisten the inhaled air, equalize the pressure, and act as a resonator to correct the timbre of the voice. The disease is polyetiological, that is, it can occur due to several reasons. The question of how to properly treat sinusitis is decided by an ENT doctor, depending on the etiology of the disease.

Key words: Types, signs, causes, treatment, prevention.

Types of sinusitis

Acute sinusitis. It appears against the background of respiratory tract infections - viral and bacterial. The pathogen enters the sinuses through anastomosis from the nasal cavity. The disease occurs with characteristic symptoms - pain in the bridge of the nose, high body temperature and a large amount of mucus discharge from the nose.

Chronic sinusitis. This form of the disease is often the result of incorrect treatment tactics for acute inflammation. Pathology occurs with a vague clinical picture - the symptoms of inflammation periodically increase and then decrease for some time.

Bilateral sinusitis. Severe form with simultaneous inflammation of both paranasal sinuses. The main cause of this condition is bacterial infection.

Catarrhal sinusitis. It often occurs in children and adolescents. The inflammatory process in the mucous membrane is moderate, so the symptoms may be mild. Complete recovery occurs with proper and timely treatment of catarrhal sinusitis.

Odontogenic sinusitis. The roots of the premolars and molars of the upper jaw are located close to the walls of the sinus, so the infection from the root canals can easily spread to the paranasal sinus and cause inflammation in it.

Allergic sinusitis. Frequent contact with allergens leads to hypertrophy of the mucous membrane and the formation of polyps.

Symptoms of sinusitis

Pain in the nose and cheeks, under the eyes. A characteristic symptom is an increase in pain when bending the body forward. There may be no unpleasant symptoms in the morning hours, the discomfort gradually increases in the evening. The intensity of pain may vary depending on the degree of inflammation. When the disease progresses, it is difficult for the patient to show the exact place of discomfort, the pain can spread to the teeth, eyes and temples;

Increased body temperature. In the acute form, in response to inflammation and intoxication of the body, the body temperature rises to 38-39 degrees. Chronic inflammation occurs with a low-grade fever, the symptoms of fever appear only when it increases.

Runny nose. The disease is characterized by a large amount of mucus or purulent discharge. The shade of the discharge depends on the stage of the disease - the discharge is transparent at the beginning and becomes yellow-green in the chronic, long-lasting course.

Difficulty in breathing. In the sinuses and nasal passages, the inflamed mucous membrane swells and thus prevents the free passage of air through the nose. The symptom worsens when lying down, so the patient often has problems sleeping.

Deterioration of general health. Poisoning of the body causes rapid fatigue, apathy, loss of appetite and sense of smell. The patient often has a headache and heaviness in the sinuses, there may be an unpleasant smell from the nose and mouth.

Causes of the disease

The main cause of acute sinusitis is the penetration of pathogenic bacteria, viruses and allergens into the paranasal sinuses. Most often, inflammation is caused by rhinoviruses, adenoviruses, influenza and parainfluenza. Less commonly isolated bacteria are streptococci, Haemophilus influenzae, and pneumococcus.

Other causes of sinusitis:

damage to the maxillary sinuses;

the entry of foreign bodies into the sinus, for example, during poor-quality root canal treatment of upper molars or premolars;

untimely or incorrect treatment for long-term runny nose;

congenital anomalies of the structure of the nasopharynx;

neoplasms of the nasal cavity and pharynx - polyps, adenoids;

chronic allergic reaction.

Treatment of non-febrile sinusitis of allergic origin begins with identification and elimination of the allergen. Antihistamines, steroids and vasoconstrictors are used to relieve symptoms.

Treatment options

The key to a full recovery is a timely visit to a specialist. An ENT doctor can diagnose and choose the most effective methods of sinusitis treatment.

Inhalations

Inhalations for sinusitis help clear the sinuses and make it easier to breathe through the nose. A breathing device - a nebulizer - turns the medicinal substance into a fine aerosol and helps deliver it deep into hard-to-reach areas, including the nasal cavity. It is important to follow the rules of the procedure for the treatment of sinusitis:

5-10 minutes before exhalation, a vasoconstrictor is instilled into the nasal passages to eliminate swelling, and the nose is washed with a saline solution;

during the procedure, breathe calmly through the nose;

procedures are carried out every day for 7-10 days.

Methods of treatment of sinusitis and drugs for inhalation are selected only by a doctor, taking into account the cause of the disease and the characteristics of its course.

Wash the nose

At home, the nasal passages are washed with saline solutions of different concentrations. This makes breathing easier and clears the mucus build-up from your sinuses faster. The procedure is carried out 2-3 times a day, and first of all it is important to eliminate nasal congestion with the help of vasoconstrictors. How to wash at home: you need to bend over the sink, turn your head to the side and pour the liquid without pressure into the nasal passage above.

Rinsing the sinuses using a moving method (puku)

The Proetz method of irrigation, known as "cuku", helps clear the sinuses of pus and mucus. The procedure got its name due to the need to repeat the phrase "peek-a-boo" during washing to prevent the liquid from entering the respiratory tract. An antiseptic solution is injected into the nasal passage through a soft catheter, while a vacuum device collects mucus and pus from the other nostril.

Maxillary sinus puncture

In difficult cases, when it is impossible to remove pus from the sinuses with the help of washing and conservative therapy, they resort to a minimally invasive surgical method - puncture - to treat purulent sinusitis. During the procedure, a needle is used to make a small hole in the sinus wall. Through it, the pathological content is removed and the sinus is washed with medicinal solutions. The procedure is performed under local anesthesia and brings immediate relief to the patient.

YAMIK method

Treatment of sinusitis without puncture is possible using YAMIK catheter. A special sinus catheter helps to remove the accumulation of pus, establish a secretion drain and wash the sinus with a medicinal solution. Balloons inserted deep into the nasal cavity change the pressure, causing pus and mucus to flow out of the sinuses on their own. The procedure is performed under local anesthesia and takes a few minutes.

Surgical treatment of sinusitis

Chronic sinusitis unresponsive to conservative treatment indicates sinusotomy or Caldwell-Luke surgery. Surgical intervention is performed using modern computer technology, which makes the operation minimally invasive. Due to the absence of incisions, rehabilitation is easier and faster.

The intervention is carried out through the nose - a flexible endoscope is inserted, the anastomosis is expanded and the changed mucous membrane is removed. Then the sinus is washed with antiseptic solutions and, if necessary, an additional anastomosis is created for better fluid drainage. The operation is performed under anesthesia, so the patient does not feel pain and discomfort.

Drug treatment of sinusitis

Treatment of sinusitis is carried out with several groups of drugs:

vasoconstrictor local means to eliminate swelling and anastomosis of the nasal mucosa;

nonsteroidal anti-inflammatory drugs to combat high fever and inflammation;

antibacterial agents - indicated only for confirmed bacterial infection, the doctor selects the drug and dosage according to the results of bacteriological research, because the uncontrolled use of antibiotics can increase the course of the disease and lead to the development of resistance in bacteria;

saline solutions for washing the nasal cavity;

local steroids to eliminate swelling and inflammation, as well as to open the natural anastomosis;

antihistamines for the allergic nature of the disease.

Long-term comprehensive treatment of sinusitis is necessary, taking into account the etiology. In most cases, a puncture of the sinus is required to evacuate the contents.

Odontogenic

The main goal of treatment of odontogenic sinusitis is to eliminate the source of infection, that is, to treat or remove the diseased tooth.

Catarrhal

Timely initiation of therapy helps to quickly eliminate symptoms and complete recovery.

Double sided

Treatment of bilateral sinusitis in adults is always complex and long, often requiring several punctures.

Can chronic sinusitis be treated?

Slow chronic sinusitis is difficult to treat. A well-designed treatment scheme for chronic sinusitis helps to reduce the frequency of exacerbations, relieve symptoms and achieve long-term remission.

Possible complications

The main complication of the acute form of sinusitis is the transition of inflammation to a chronic state. Since the organs of the ENT are interconnected, the infection from the sinuses easily spreads to neighboring areas, so sinusitis is often complicated by otitis, pharyngitis or tonsillitis. The pus accumulated in the sinuses cannot come out on its own due to the blocked anastomosis, so there is a risk of spreading the purulent content to the brain and orbit.

Incorrectly selected methods of treatment of sinusitis or complete neglect of therapy can lead to serious consequences:

meningitis - inflammation of the meningitis;

encephalitis - inflammation of the brain;

sepsis - the penetration of bacteria into the blood.

In order to avoid complications, it is important that the recommendations for the treatment of sinusitis are given by a competent specialist after the diagnosis.

What can not be done with sinusitis

Self-antibiotics are antibacterial agents. For example, if the disease has an allergic nature, sinusitis can be treated without antibiotics. In addition, improperly selected drugs aggravate the course of the disease and provoke the development of resistance to antibiotics.

Warm up the nose and sinus area - during inflammation, any procedures with heat are undesirable, because heating increases the formation of pus. For the same reason, it is forbidden to visit baths and saunas.

Treat with "People's" nasal drops - homemade solutions use honey, milk, garlic and laundry soap and other ingredients, which, if they get into the nose, can cause burns of the mucous membrane and are an excellent breeding ground for bacteria.

List of used literature:

1. Rustamovich, A. I., Negmatovich, T. K., & Fazliddinovich, S. D. (2022). БОЛАЛИКДАН БОШ МИЯ ФАЛАЖИ ФОНИДА РИНОСИНУСИТИ БОР БЕМОРЛАРДА БУРУН БЎШЛИҒИ МУКОЦИЛИАР ТРАНСПОРТИ НАЗОРАТИ ТЎҒРИСИДАГИ ЗАМОНАВИЙ ҚАРАШЛАР (адабиётлар шарҳи). JOURNAL OF BIOMEDICINE AND PRACTICE, 7(2).
2. Абдурахмонов, И. Р., & Шамсиев, Д. Ф. (2021). Эффективность применения местной антибиотикотерапии в лечении параназального синусита у детей с церебральным параличем. In НАУКА И ОБРАЗОВАНИЕ: СОХРАНЯЯ ПРОШЛОЕ, СОЗДАЁМ БУДУЩЕЕ (pp. 336-338).
3. Абдураҳмонов, И. Р., & Шамсиев, Д. Ф. (2021). Болаликдан бош мия фалажи билан болалардаги ўткир ва сурункали параназал синуситларни даволашда мукорегуляр дори воситасини самарадорлигини ўрганиш. T [a_XW [i [S US S_S^[ùe YfcS^, 58.
4. Siddikov, O., Daminova, L., Abdurakhmonov, I., Nuralieva, R., & Khaydarov, M. OPTIMIZATION OF THE USE OF ANTIBACTERIAL DRUGS DURING THE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE. Turkish Journal of Physiotherapy and Rehabilitation, 32, 2.

5. Тураев, Х. Н. (2021). Абдурахмонов Илхом Рустамович Влияние будесонида на качество жизни пациентов с бронхиальным обструктивным синдромом. Вопросы науки и образования, 7, 132.
6. Абдурахманов, И., Шамсиев, Д., & Олимжонова, Ф. (2021). Изучение эффективности мукорегулярных препаратов в лечении острого и хронического параназального синусита при детском церебральном параличе. Журнал стоматологии и краниофациальных исследований, 2(2), 18-21.
7. Абдураҳмонов, И. Р., & Шамсиев, Д. Ф. (2023). БОШ МИЯ ФАЛАЖИ ФОНИДАГИ ПАРАНАЗАЛ СИНУСИТЛАРНИ ДАВОЛАШДА ЎЗИГА ХОС ЁНДАШИШ. MedUnion, 2(1), 14-26.
8. Орипов, Р. А., Абдурахмонов, И. Р., Ахмедов, Ш. К., & Тураев, Х. Н. (2021). ОСОБЕННОСТИ ПРИМЕНЕНИЕ АНТИОКСИДАНТНЫХ ПРЕПАРАТОВ В ЛЕЧЕНИИ НЕЙРОДЕРМИТА.
9. Ахмедов, Ш. К., Тураев, Х. Н., Абдурахмонов, И. Р., & Орипов, Р. А. (2021). НЕКОТОРЫЕ ОСОБЕННОСТИ ТАКТИКИ ПРОДУКТИВНОГО ЛЕЧЕНИЯ ХРОНИЧЕСКОЙ КРАПИВНИЦЫ.
10. Абдурахмонов, И. Р. (2021). Исследование мукоцилиарной транспортной функции слизистой оболочки полости носа у больных с параназальным синуситом на фоне детского церебрального паралича. In Актуальные аспекты медицинской деятельности (pp. 256-259).
11. Абдурахмонов, И. Р., & Тураев, Х. Н. (2022). ОПЫТ ПРИМЕНЕНИЯ СИНУПРЕТА С АНТИБАКТЕРИАЛЬНЫМИ ПРЕПАРАТАМИ В КОМПЛЕКСНОЙ ТЕРАПИИ РИНОСИНУСИТОВ У БОЛЬНЫХ ДЕТСКИМ ЦЕРЕБРАЛЬНЫМ ПАРАЛИЧОМ. Достижения науки и образования, (2 (82)), 88-92.
12. Abdurakhmanov, I., & Shernazarov, F. (2023). SPECIFIC ASPECTS OF TREATMENT OF CHRONIC RHINOSINUSITIS IN CHILDREN. Science and innovation, 2(D10), 164-168.
13. Andryev S. et al. Experience with the use of memantine in the treatment of cognitive disorders //Science and innovation. – 2023. – Т. 2. – №. D11. – С. 282-288.
14. Antsiborov S. et al. Association of dopaminergic receptors of peripheral blood lymphocytes with a risk of developing antipsychotic extrapyramidal diseases //Science and innovation. – 2023. – Т. 2. – №. D11. – С. 29-35.
15. Asanova R. et al. Features of the treatment of patients with mental disorders and cardiovascular pathology //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 545-550.
16. Begbudiyev M. et al. Integration of psychiatric care into primary care //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 551-557.
17. Bo'Riyev B. et al. Features of clinical and psychopathological examination of young children //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 558-563.
18. Borisova Y. et al. Concomitant mental disorders and social functioning of adults with high-functioning autism/asperger syndrome //Science and innovation. – 2023. – Т. 2. – №. D11. – С. 36-41.
19. Ivanovich U. A. et al. Efficacy and tolerance of pharmacotherapy with antidepressants in non-psychotic depressions in combination with chronic brain ischemia //Science and Innovation. – 2023. – Т. 2. – №. 12. – С. 409-414.
20. Nikolaevich R. A. et al. Comparative effectiveness of treatment of somatoform diseases in psychotherapeutic practice //Science and Innovation. – 2023. – Т. 2. – №. 12. – С. 898-903.

21. Novikov A. et al. Alcohol dependence and manifestation of autoagressive behavior in patients of different types //Science and innovation. – 2023. – T. 2. – №. D11. – C. 413-419.
22. Pachulia Y. et al. Assessment of the effect of psychopathic disorders on the dynamics of withdrawal syndrome in synthetic cannabinoid addiction //Science and innovation. – 2023. – T. 2. – №. D12. – C. 240-244.
23. Pachulia Y. et al. Neurobiological indicators of clinical status and prognosis of therapeutic response in patients with paroxysmal schizophrenia //Science and innovation. – 2023. – T. 2. – №. D12. – C. 385-391.
24. Pogosov A. et al. Multidisciplinary approach to the rehabilitation of patients with somatized personality development //Science and innovation. – 2023. – T. 2. – №. D12. – C. 245-251.
25. Pogosov A. et al. Rational choice of pharmacotherapy for senile dementia //Science and innovation. – 2023. – T. 2. – №. D12. – C. 230-235.
26. Pogosov S. et al. Gnostic disorders and their compensation in neuropsychological syndrome of vascular cognitive disorders in old age //Science and innovation. – 2023. – T. 2. – №. D12. – C. 258-264.
27. Pogosov S. et al. Prevention of adolescent drug abuse and prevention of yatrogenia during prophylaxis //Science and innovation. – 2023. – T. 2. – №. D12. – C. 392-397.
28. Pogosov S. et al. Psychogenetic properties of drug patients as risk factors for the formation of addiction //Science and innovation. – 2023. – T. 2. – №. D12. – C. 186-191.
29. Prostyakova N. et al. Changes in the postpsychotic period after acute polymorphic disorder //Science and innovation. – 2023. – T. 2. – №. D12. – C. 356-360.
30. Prostyakova N. et al. Issues of professional ethics in the treatment and management of patients with late dementia //Science and innovation. – 2023. – T. 2. – №. D12. – C. 158-165.
31. Prostyakova N. et al. Sadness and loss reactions as a risk of forming a relationship together //Science and innovation. – 2023. – T. 2. – №. D12. – C. 252-257.
32. Prostyakova N. et al. Strategy for early diagnosis with cardiovascular diseaseisomatized mental disorders //Science and innovation. – 2023. – T. 2. – №. D12. – C. 166-172.
33. Rotanov A. et al. Comparative effectiveness of treatment of somatoform diseases in psychotherapeutic practice //Science and innovation. – 2023. – T. 2. – №. D12. – C. 267-272.
34. Rotanov A. et al. Diagnosis of depressive and suicidal spectrum disorders in students of a secondary special education institution //Science and innovation. – 2023. – T. 2. – №. D11. – C. 309-315.
35. Rotanov A. et al. Elderly epilepsy: neurophysiological aspects of non-psychotic mental disorders //Science and innovation. – 2023. – T. 2. – №. D12. – C. 192-197.