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ETIOLOGY AND PATHOLOGY OF TONSILLOPHARYNGITIS

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Annotation: Tonsillopharyngitis is an acute infectious process that affects the mucous membrane of the oropharynx and its lymphatic apparatus (palatine tonsils, lymphoid granules). It is accompanied by pain in the throat (especially when swallowing), hyperemia of the mucous membrane, plaque on the tonsils, regional lymphadenitis, fever. Diagnosis is based on a pharyngoscopic picture, rapid test data, and a pharyngeal backsplash. The treatment uses antibacterial, antiviral or antifungal drugs, local antiseptics, gargling, inhalation.

Key words: antifungal drugs, local antiseptics, gargling, inhalation.

Tonsillopharyngitis (pharyngotonsillitis) is an infectious inflammation of the palatine tonsils (tonsillitis) and the posterior pharyngeal wall (pharyngitis). Acute tonsillopharyngitis is transmitted annually to about 10% of the population, of which the majority (75%) are people under 30 years of age. Viral tonsillitis and pharyngitis predominate in children under 3 years of age, streptococcal tonsillopharyngitis prevails among preschoolers and adolescents. The urgency of acute pharyngeal infections lies in the danger of developing local purulent complications, immune-mediated damage to the heart, joints, and kidneys.

Acute throat infections can be bacterial, viral, or fungal in nature. The etiological structure of tonsillopharyngitis is as follows:

1. Bacterial infection. The most common microbial pathogen is Group A beta – hemolytic streptococcus (HSA). It is responsible for 30% of pharyngeal inflammations in the pediatric population and 10% in the adult population. Other non-specific flora (pneumococci, hemophilic bacillus, arcanobacteria), specific bacteria (Corynebacteria, Neisseria, Vincent's spirochetes), atypical microorganisms (chlamydia, mycoplasma) are less common.
2. Acute respiratory viral infections. Among respiratory viruses, tonsillopharyngitis is more often caused by adenoviruses, RSV, coronaviruses, parainfluenza pathogens, and rhinoviruses. In a smaller number of cases, the etiological agents are Coxsackie and Epstein-Barr viruses.
3. Mycotic infection. More than 90% of pharyngomycoses are based on colonization of the oropharynx by yeast-like fungi candida albicans.
4. Non-sectional forms. Diffuse inflammation of the pharynx and tonsils can be associated with allergies, injuries (foreign bodies, surgery), exposure to physical factors (hot steam, cold air, chemicals, ionizing radiation).

The source of infection spread is clinically healthy pathogen carriers or sick people who secrete pathogens into the external environment when talking, sneezing, or coughing. Infection of others mainly occurs by airborne droplets. Alimentary transmission occurs when food products are contaminated with pathogens. The incidence of tonsillopharyngitis increases in the autumn-winter period.

Predisposing factors

A certain role in increasing the risk of tonsillopharyngitis is played by additional conditions that change the body's reactivity and contribute to the rapid spread of infection:

- local and general hypothermia;
- hypovitaminosis;
- lymphatic-hyperplastic diathesis;

- immunodeficiency disorders;
- excessive crowding of people.

Pathogenesis

When the pathogen enters the upper respiratory tract, a local and systemic inflammatory response develops. In the focus of invasion, epithelial cells are damaged, and the processes of alteration and exudation begin. The release of inflammatory mediators leads to local tissue edema, plethora and lymphostasis. Plaque forms on the surface of the tonsils. When local protective barriers are overcome, infectious agents spread through the lymphatic pathways, causing a reaction from the regional lymph nodes.

In the pathogenesis of streptococcal tonsillopharyngitis, in addition to local invasion, such pathogenicity factors of BSA as toxins (streptolysin, hemolysin, leukocidin) and proteases (streptokinase, hyaluronidase, C5a-peptidase) play an important role. They not only have a direct damaging effect on the cells of the heart and central nervous system, but also cause the formation of autoantibodies that destroy the endothelium of blood vessels, kidneys, and synovial membranes of joints. A systemic infectious and inflammatory response develops.

Acute oropharyngeal infections in clinical otolaryngology are classified based on the etiology, location and form of inflammation. Depending on the cause, tonsillopharyngitis is divided into:

- infectious diseases: bacterial (streptococcal, non-streptococcal), viral, fungal;
- non-infectious diseases (allergic, traumatic, thermal, chemical).

Taking into account the predominant localization of inflammation in one or another part of the pharynx, tonsillitis, pharyngitis, and tonsillopharyngitis are distinguished. By the nature of the inflammatory reaction, the following forms are distinguished::

- catarrhal – only the pharyngeal mucosa is affected;
- lacunar – occurs with the involvement of lacunae of the palatine tonsils;
- follicular – lymphoid follicles are involved in inflammation;
- fibrinous-characterized by the presence of a film plaque extending beyond the borders of the tonsils;
- phlegmonous – accompanied by abscess formation of paratonsillar tissue;
- ulcerative-membranous – characterized by the appearance of erosive-ulcerative and necrotic foci on the tonsils and the back wall of the pharynx;
- mixed version.

Symptoms of tonsillopharyngitis

The leading clinical symptom of any pharyngeal inflammation is a sore throat. Its intensity varies from discomfort (soreness, scratching, tingling) to severe soreness, which increases when swallowing saliva and eating. Tickling in the throat and mucus flowing from the nasopharynx cause coughing. When plaque and corks form in the tonsils, an unpleasant taste and smell in the mouth appear.

Systemic manifestations of tonsillopharyngitis are represented by fever and intoxication syndrome: weakness, headache, body aches. Sometimes enlarged painful cervical lymph nodes are palpated. The clinical picture of pharyngeal infections caused by different pathogens has its own characteristic differences.

Some forms of tonsillopharyngitis

Adenovirus infection is a combination of pharyngitis, rhinitis and conjunctivitis. The fever has a wave-like character. Cervical and submandibular lymphadenitis is noted. A distinctive sign of herpetic pharyngitis is a vesicular rash in the pharynx.

Acute streptococcal tonsillopharyngitis is accompanied by febrile fever, chills, and severe intoxication. Swallowing is difficult and painful. A scarlet fever-like rash may occur. Antero-cervical lymph nodes are enlarged. Cough and rhinorrhea are not characteristic.

With fungal tonsillopharyngitis, white or white-yellow curd layers are visible on the tonsils and pharyngeal mucosa, and the general symptoms are poorly expressed. Mycoplasma pharyngotonsillitis in the initial period is manifested by a symptom complex, including sore throat, cough, headache. In the future, bronchitis and pneumonia develop.

Complications

Viral tonsillopharyngitis is complicated by the addition of bacterial flora, so catarrhal inflammation can turn into purulent in a few days. Streptococcal infections of the throat cause complications on the structures of the ear (eustachitis, otitis media, mastoiditis), nasopharynx (sinusitis, etmoiditis).

When the inflammation spreads to the surrounding tissue, paratonsillar and parapharyngeal abscesses develop, and when the infection passes to the mediastinal tissue, mediastinitis develops. Tonsillogenic sepsis is dangerous in terms of prognosis.

Neurodevelopmental complications of tonsillopharyngitis that manifest on day 8-10 include post-streptococcal glomerulonephritis, reactive arthritis, and toxic streptococcal syndrome. Rheumatic fever may occur 2-3 weeks after clinical recovery. Children are at risk of developing PANDAS syndrome.

Diagnostics

The diagnosis of tonsillopharyngitis is made by an otolaryngologist, based on the data of the clinical picture, oropharyngoscopy. Etiological affiliation is established by laboratory tests. At an outpatient appointment, the following procedures are performed::

- Pharyngoscopy. When examining the pharynx, hyperemia of the palatine arches, tonsils, and posterior pharyngeal wall is visible. By the nature of plaque, rashes and elements on the mucosa, it is possible to presumably judge the etiology of tonsillopharyngitis.
- Identification of the pathogen. A smear is taken for cultural research from the tonsils, the posterior pharyngeal wall. For rapid detection of streptococcal antigen in outpatient practice, a streptatest is used. If necessary, virological studies, PCR, and ELISA are performed.

During diagnostic procedures, other diseases that cause visible changes and pain in the pharynx are excluded.:

- laryngopharyngeal reflux;
- postnasal congestion syndrome;
- agranulocytic sore throat;
- acute thyroiditis;
- neuralgia of the glossopharyngeal nerve;
- oropharyngeal cancer;
- angina in leukemia.

Treatment of tonsillopharyngitis

Conservative therapy

Throat infections usually do not require hospitalization, except in cases of severe intoxication and a high risk of complications. Patients with tonsillopharyngitis are recommended to drink plenty of warm vitaminized water, voice rest, and avoid rough, spicy, or too hot food. Systemic and local treatment is prescribed, including:

- Etiotropic therapy. In acute respiratory viral infections, interferons and interferon inducers are used. Tonsillopharyngitis caused by BSA requires antibacterial therapy using beta-lactams, cephalosporins, and macrolides. Antimycotic therapy is indicated for pharyngomycosis.
- Auxiliary therapy. NSAIDs are recommended to relieve fever and sore throat. Against the background of ongoing systemic therapy, it is advisable to prescribe antihistamines. With prolonged or recurrent tonsillopharyngitis, it is possible to take adaptogens and vitamins.
- Local treatments. They include gargling with phyto-solutions, using oroseptics in the form of sprays, lozenges for resorption. Topical immunomodulators are recommended. According to the indications, the tonsils are washed (manually, on the Tonsillor device).
- Physical therapy. In the absence of fever, drug inhalations, OCF therapy, and ultraphonophoresis are performed on the tonsils. Halotherapy has a proven sanogenic and anti-inflammatory effect.

Surgical treatment

Surgical tactics are used for the development of purulent complications. When a paratonsillar abscess is formed, it is widely dissected or abscessonzillectomy is performed. For recurrent tonsillopharyngitis, a planned tonsillectomy is performed.

Prognosis and prevention

Viral tonsillopharyngitis in people with normal immunity is rarely complicated and usually ends with recovery within a week. The prognosis of streptococcal infection depends on the adequacy of treatment and the development of systemic complications. Patients with various types of immunodeficiency and diabetes mellitus should be particularly wary. Prevention of tonsillopharyngitis is reduced to measures to prevent the spread of acute respiratory viral infections (hand washing, wearing PPE, hardening, fortification), isolation of patients, exclusion of contact with toxic and aggressive substances.

Literature:

1. Qizi, B. O. S., Qizi, X. D. A., & Yusupovich, M. I. (2022). IJTIMOIY SIYOSAT: ROSSIYADA INKLYUZIV TA? LIM HAQIDA. *FAN, TA'LIM VA AMALIYOTNING INTEGRASIYASI*, 922-930.
2. Yusup o‘g’li, M. I. (2022). Mustaqil ta’limni blended learning texnologiyasi asosida tashkil etish. *FAN, TA'LIM VA AMALIYOTNING INTEGRASIYASI*, 126-131.
3. Yusup o‘g‘li, M. I. (2024). OLIY TA’LIM MUASSALARIDA INKLYUZIV TA’LIMNI RIVOJLANTIRISH: MUAMMO VA YECHIMLAR. *FAN, TA'LIM VA AMALIYOTNING INTEGRASIYASI*, *5*(1), 1-10.
4. Usmanovna, N. G., & Oybekovna, D. G. (2018). The importance of motivation in education. *Достижения науки и образования*, (16 (38)), 33-35.
5. Jumaboyeva, J. S., & Daminova, G. O. (2019). ROLE OF TEACHERS'MOTIVATION IN TEACHING. *Вопросы науки и образования*, (3), 84-88.
6. Oybekovna, D. G., & Ahmadjonovna, M. M. (2019). Different roles of teachers. *Проблемы педагогики*, (1 (40)), 19-20.
7. Gulbahor, D., Nazirovna, I. D., & Hoshimovna, B. M. (2020). INCREASING LANGUAGE SKILLS IN MEDICAL INSTITUTIONS. *Journal of Complementary Medicine Research*, *11*(1), 134-134.
8. Ахмедова, М., Расулова, Н., & Абдуллаев, Х. (2016). Изучение парциальных функций почек у детей раннего возраста с нефропатией обменного генеза. *Журнал проблемы биологии и медицины*, (2 (87)), 37-40.
9. Расулова, Н. А. (2009). Клиническая значимость факторов риска развития рахита у детей. *Врач-аспирант*, *34*(7), 567-571.