

UPPER RESPIRATORY TRACT INFECTIONS: PREVALENCE AMONG CHILDREN AND APPROACHES TO TREATMENT

Rasulova Farzona

1st year student, pediatric faculty, Fergana Medical Institute of Public Health, Uzbekistan

Safakhonova Nozilahon

1st year student, pediatric faculty, Fergana Medical Institute of Public Health, Uzbekistan

Abstract: This article discusses upper respiratory tract infections in children, their causes, clinical manifestations, diagnostic methods and modern approaches to treatment. Also discussed preventive measures .

Keywords: Rhinitis, Sinusitis, Pharyngitis, Tonsillitis, Adenoiditis, Laryngitis, Acute, Chronic, Etiology.

Аннотация: В статье рассматриваются инфекции верхних дыхательных путей у детей, их причины, клинические проявления, методы диагностики и современные подходы к лечению. Также рассматриваются профилактические меры.

Ключевые слова: Ринит, Синусит, Фарингит, Тонзиллит, Аденоидит, Ларингит, Острый, Хронический, Этиология.

Introduction

Upper respiratory tract infections are among the most common diseases in pediatrics. As a rule, they have a viral etiology and manifest themselves in various clinical symptoms in children. The increase in the number of sick children, deterioration of environmental factors and decreased immunity further increase the relevance of these infections. The purpose of the article is a comprehensive study of the main types of URTIs, causal factors, clinical course, as well as modern approaches to diagnosis and treatment.

Main part

Types of Upper Respiratory Tract Infections

Upper respiratory tract infections manifest themselves in the form of rhinitis, pharyngitis, laryngitis, tonsillitis and sinusitis. These infections are usually associated with viruses, and each disease has its own clinical features. For example, rhinitis is characterized by nasal congestion, sneezing and watery discharge; pharyngitis is characterized by a sore throat and difficulty swallowing; laryngitis is characterized by hoarseness and a dry cough; and tonsillitis is characterized by general malaise and fever. Sinusitis is characterized by headache and facial pain.

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Etiology and pathogenesis

The main etiologic agents of upper respiratory tract infections are viruses (influenza, parainfluenza, adenovirus, rhinovirus, and others). In some cases, the cause may be bacterial infections, such as *Streptococcus pyogenes*, *Haemophilus influenzae*. The infection is transmitted by airborne droplets and causes inflammation of the mucous membrane of the upper respiratory tract.

Clinical manifestations

The symptoms of the disease depend on the type of infection and its severity. Children experience general weakness, fever, cough, nasal congestion, headache, pain when swallowing, and sore throat. In most cases, these symptoms last for several days, but sometimes complications such as otitis media, bronchitis, or pneumonia develop. Upper respiratory tract infections in children present with various clinical signs. These symptoms vary depending on the type of infection, its etiology, the patient's age, and general health. The main clinical manifestations are listed below:

Rhinitis (nasal congestion)

Nasal congestion: Children experience nasal congestion or discharge due to inflammation of the mucous membrane. The discharge is usually thin and clear, but may later become thick and be accompanied by coughing and headache.

Sneezing: Blockage and irritation of the nasal passages causes frequent sneezing.

Itchy nose: Children may experience itching inside the nose, which results in constant sneezing.

Laryngitis (voice change)

Voice changes: With laryngitis, a child's voice may become hoarse or husky, and in some cases, it may disappear completely.

Difficulty breathing: Children with laryngitis may experience difficulty breathing, especially if the condition is mild.

Dry cough: Laryngitis is often accompanied by a dry cough, which increases the child's asthma attacks.

Stages of diagnostics

At the first stage of diagnosis, it is necessary to conduct a general clinical examination of the child. Then laboratory tests are used, in particular, a complete blood count (CBC), C-reactive protein (CRP), virological tests. In some cases, a swab is taken from the nasopharynx, which is examined microscopically or by the PCR method. If necessary, the presence of sinusitis or bronchitis is detected using X-ray examinations.

Treatment methods

In the treatment of upper respiratory tract infections, the main focus is on symptomatic therapy. This includes the use of antipyretics, antitussives, antiseptics and drugs that boost the immune system. If a bacterial infection is detected, antibiotics are prescribed. Nasal rinsing, drinking warm liquids and adequate rest are also important.

Since most upper respiratory tract infections are viral in origin, symptomatic treatment is aimed at reducing general symptoms and alleviating the patient's condition. The main goal of symptomatic therapy is to eliminate symptoms such as fever, cough, nasal congestion, headache, etc. Treatment methods include:

Antipyretic drugs : If the body temperature is above 38°C , drugs such as paracetamol or ibuprofen are prescribed. They help reduce the temperature, reduce inflammation and relieve pain.

Cough suppressants : Cough suppressants (such as dextromethorphan) or expectorants (such as ambroxol) are used to relieve cough. The choice of drug depends on the type of cough (dry or wet).

Nasal decongestants : Decongestants (such as oxymetazoline, phenylephrine) are used to relieve congestion , helping to clear the nasal passages and make breathing easier. Nasal irrigation with saline or salt water is also considered effective.

Painkillers : For sore throats and headaches, it is recommended to take paracetamol or ibuprofen. Gargling (for example, with salt water) can also help.

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Preventive measures

To prevent infections, it is necessary to follow hygiene rules, protect children from hypothermia, wear masks in crowded places and strengthen children's immunity. Seasonal

flu vaccinations also play an important role in reducing the incidence of upper respiratory tract infections.

Conclusion

Upper respiratory tract infections are common among children and can cause many complications. Timely detection, proper treatment, and effective preventive measures help keep children healthy. Pediatricians should regularly update their knowledge in this area and approach each patient individually.

Upper respiratory tract infections are one of the most common pathologies in pediatrics. Their various forms - rhinitis, pharyngitis, laryngitis, tonsillitis and sinusitis - manifest in children with different clinical symptoms and in some cases are complicated by severe consequences. Research shows that these infections are mainly transmitted by viruses (for example, rhinovirus, influenza virus), but bacterial forms also occur.

Early detection of infections and accurate diagnosis play an important role in effective treatment and prevention of complications. In diagnostics, clinical examination, laboratory tests and, if necessary, instrumental methods are of primary importance. In the course of treatment, an individual approach is required, taking into account the etiological factor of the infection; along with symptomatic therapy, antibiotics are prescribed in necessary cases.

In addition, prevention of upper respiratory tract infections is a key factor in preventing their widespread spread. This is achieved by observing hygiene rules, maintaining a healthy lifestyle, paying attention to diet and vaccination. In general, in the fight against upper respiratory tract infections, it is important for parents, teachers and health workers to work together, properly implement preventive measures, strengthen children's immunity and increase social awareness. In addition, the study of these infections, the widespread introduction of modern diagnostic and treatment methods into medical practice can lead to significant achievements in the field of pediatrics.

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