



IMPROVING THE EFFICACY OF TREATING CHRONIC PURULENT MESOTYMPANITIS IN CHILDREN

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Abstract: Chronic suppurative mesotympanitis in children is one of the most common diseases in otorhinolaryngology, characterized by prolonged inflammation of the middle ear mucosa and purulent discharge. This study examines modern diagnostic and treatment methods aimed at improving the efficacy of treating chronic suppurative mesotympanitis in children.

Keywords: Chronic suppurative mesotympanitis, pediatric otorhinolaryngology, middle ear inflammation, antibacterial therapy, physiotherapy, hearing impairment, comprehensive treatment, prevention, diagnosis.

Introduction:

Among the ENT diseases found in children, chronic suppurative mesotympanitis is a significant medical and social problem. This condition is characterized by prolonged inflammation of the middle ear's mucous membrane and is often accompanied by a perforated eardrum and purulent discharge.

Middle ear diseases are common in children due to the anatomical and physiological features of their ears. In preschool children especially, the shortness and width of the Eustachian tube contribute to the rapid spread of infection.

Failure to treat the disease promptly and correctly can lead to hearing loss, delayed speech development, and the emergence of other complications. Therefore, increasing the effectiveness of treatment for chronic suppurative mesotympanitis in children is one of the key tasks in modern otorhinolaryngology.

Purpose of the study: To study the methods of diagnosis and treatment aimed at increasing the effectiveness of treatment of chronic purulent mesotympanitis in children, as well as to analyze the significance of complex therapy.

Materials and methods of research

During the study, cases of chronic purulent mesotympanitis occurring in children of various ages were investigated. The following methods were used during the examination process:

- clinical examination;
- otoscopy;
- audiometry;
- laboratory tests;
- bacteriological analysis.

The following methods were used in the treatment of the disease:

- Antibacterial therapy
- Local antiseptic agents
- Physiotherapeutic procedures



- Surgical treatment, when necessary
- Etiology of chronic purulent mesotympanitis.

The development of the disease can be caused by various microorganisms. The most common bacteria include:

- Staphylococcus aureus;
- Streptococcus pneumoniae;
- Pseudomonas aeruginosa.

In addition, the following factors contribute to the development of the disease:

- frequent colds;
- decreased immunity;
- improperly treated acute otitis;
- poor hygiene.

Clinical Signs.

In children, chronic suppurative mesotympanitis manifests with the following symptoms:

- purulent discharge from the ear;
- hearing loss;
- tinnitus (ringing in the ears);
- occasional pain;
- deterioration of general well-being.

The disease can be prolonged, sometimes with periods of remission and exacerbation.

Diagnostics

The following diagnostic methods are used to identify the disease:

- Otoscopy;
- Detects perforation of the eardrum and purulent discharge;
- Audiometry;
- Allows for the assessment of hearing level;
- Laboratory tests;

Bacteriological analyses are conducted to identify the infectious agent.

Discussion

Studies show that using only a single method is insufficient for treating chronic suppurative mesotympanitis in children. The best results are observed when a comprehensive approach is applied. In modern otorhinolaryngology, new antibiotics, minimally invasive surgical techniques, and physiotherapy treatments are widely used.

Chronic suppurative mesotympanitis is one of the most common diseases in pediatric otorhinolaryngology, characterized by a prolonged inflammatory process that often results in hearing impairment. A significant clinical aspect of this disease is its potential to negatively affect not only a child's hearing but also their speech development, psychological state, and social adaptation. Therefore, increasing the effectiveness of its treatment is one of the most pressing issues in modern pediatric otorhinolaryngology.

Analysis of the research findings showed that chronic suppurative mesotympanitis often develops as a result of the incomplete treatment of acute otitis media. In children, the anatomically shorter and wider auditory tube allows for the rapid spread of infection from the nasopharynx to the middle ear. Consequently, a prolonged inflammatory process occurs in the

mucous membrane of the middle ear, leading to perforation of the eardrum and the appearance of purulent discharge.

According to data presented in scientific literature, bacterial infections play a significant role in the development of this disease. Microorganisms such as *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Streptococcus pneumoniae* are most commonly identified. These bacteria have the ability to form biofilms, which increases their resistance to antibiotics and complicates the treatment process. Therefore, antibiotic therapy based on the results of microbiological examination is crucial in treating the disease.

The results obtained during the study indicated that using only a single method to treat the disease does not yield sufficient efficacy. The best results are observed when a comprehensive treatment approach is applied. Comprehensive treatment includes antibacterial therapy, local antiseptic treatment, physiotherapy procedures, and, when necessary, surgical interventions. This approach helps to resolve the inflammatory process more quickly and restore hearing function.

Conservative treatment methods are considered effective in the initial stages of the disease. Antibacterial drugs serve to eliminate the infection, while antiseptic agents help to cleanse the middle ear cavity and reduce the number of microorganisms. Concurrently, anti-inflammatory drugs reduce the swelling of the mucous membrane and improve its drainage function.

Physiotherapeutic procedures also play an important role in enhancing treatment effectiveness. UHF therapy, laser therapy, and ultrasound treatments improve blood circulation, reduce the inflammatory process, and accelerate tissue regeneration. According to the research findings, the use of physiotherapy procedures in conjunction with conservative treatment significantly accelerates the recovery process for patients.

However, in some cases, conservative treatment may not be sufficiently effective. In such situations, surgical treatment methods are employed. Tympanoplasty surgery is widely used in modern otorhinolaryngology. This operation is aimed at repairing the eardrum and improving hearing function. Studies show that patients who have undergone tympanoplasty experience a significant improvement in hearing, and the likelihood of disease recurrence decreases.

Preventive measures are also important in increasing the effectiveness of treatment. The timely treatment of upper respiratory tract diseases in children, adherence to hygiene rules, and strengthening the immune system help prevent the development of the disease. It is also important to conduct preventive awareness campaigns among parents and medical personnel.

Thus, the conducted research and analysis of scientific literature show that a comprehensive approach is the most effective for treating chronic suppurative mesotympanitis in children. The use of antibacterial therapy, local treatment, physiotherapy, and, where necessary, surgical methods enables the successful treatment of the disease. Furthermore, early detection of the disease and the implementation of preventive measures are vital in preventing the future development of hearing impairments and other complications.

Conclusion

Chronic purulent mesotympanitis is one of the most common diseases in children and can lead to hearing loss. Early diagnosis and the application of comprehensive treatment methods significantly increase treatment efficacy.



The use of antibacterial therapy, topical treatments, physiotherapy, and, when necessary, surgical intervention allows for the effective management of the disease. Therefore, an individualized and comprehensive approach is crucial for treating this condition in children.

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