

Treatment and Prevention of Otitis or Ear Inflammation

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ABSTRACT

Otitis is an inflammation of the ear. The disease can be chronic or acute, purulent or catarrhal. The severity of the pathological process depends entirely on microorganisms, and the state of human immunity plays a very large role in this.

According to statistics, 30% of all otorhinolaryngological diseases are an acute form of otitis. Preschool children are more prone to this disease than adults. 80% of children under the age of three have been infected with otitis media at least once.

To microbes that inflame the hearing organ and cause otitis:

Introduction

Haemophilus bacilli and other microorganisms are included. Any ear infection is very dangerous and you should see a doctor if you have symptoms (described below).

SYMPTOMS AND SIGNS OF Otitis

Symptoms that indicate the presence of acute otitis media include: Severe pain in the ear; Fever; Purulent discharge from the ear canal after 1-3 days. After the discharge of pus, the patient's condition improves, body temperature decreases, and pain significantly decreases or disappears. The pus comes out of the slit in the eardrum. Such a result of the disease is considered positive, and with proper treatment, the eardrum gradually recovers without affecting the ability to hear. The negative development of the disease is dangerous because it is impossible for the pus to come out and it can spread inside the skull. Such otitis can cause meningitis, as well as brain abscess. To prevent such terrible consequences, contact an otorhinolaryngologist for advice and treatment at the first symptoms of otitis.

Classification of inflammation according to location:

External otitis;

Otitis media;

Internal otitis.

External otitis often develops in swimmers. Inflammation begins due to damage to the external ear canal or auricle. Violation of the protective layer leads to the entry and reproduction of pathogenic microorganisms in that place, and then a furuncle is formed in that place. If the

appropriate treatment is not carried out, otitis externa becomes severe and the inflammation moves to the side ligaments and bone of the ear. In such cases, the patient has symptoms such as severe throbbing pain, swelling of the ear, and a moderate increase in body temperature.

In otitis media, the inflammatory process spreads to the airway space of the middle ear located behind the eardrum: the eardrum cavity, the auditory tube and the mastoid tumor. Otitis media often changes from a catarrhal form to a purulent form. Acute catarrhal otitis of the middle ear can also be formed as a complication of ORVI (wind), which occurs after the pathogen enters the tympanic cavity of the infection. At the initial stage, the hearing level may decrease, noise can be heard in the ear, but the temperature will be normal or slightly elevated. If these symptoms are not taken into account, then catarrhal otitis develops further and suddenly manifests itself with a strong fever and pain in the ear. The pain may later spread to the eyes, neck, throat, or teeth. To treat such otitis, it is only necessary to eliminate the infection, and for this, it is necessary to quickly consult a doctor. Acute purulent otitis media is a past catarrhal form of the disease. The disease is accompanied by rupture of the eardrum and discharge of pus, followed by a decrease in body temperature. Along with fighting the infection, treatment should include continuous drainage of pus from the ear, which can only be done by a doctor. In addition, pus does not always go away on its own. If the ear drum is very strong, surgery is required to pierce it. This operation is called "paracentesis" and is performed under local anesthesia: a hole is made with a special tool at the most convenient point and the pus is completely drained. After the pus is removed, the eardrum is restored and the quality of hearing is not impaired. If acute otitis media is not treated, the pus spreads inside the skull. As a result, internal otitis develops, which affects the vestibular apparatus, which causes brain abscess and at least partial or complete hearing loss. Therefore, when the first symptoms of otitis are observed, you should immediately go to the doctor without dropping anything in the ear or putting a tampon with alcohol or other antiseptics!

CAUSES OF OTITIS

All ENT diseases are accompanied by a large amount of mucus production. As the amount of mucus increases, in desperate situations, the mucus enters the Eustachian canal and disrupts the ventilation of the drum cavity. The cells of the tympanic cavity begin to secrete an inflammatory fluid. In addition to blockage of the Eustachian tube, pathogenic microorganisms, which are usually part of the local microflora, also contribute to the increase of inflammation.

The causes of otitis are:

- Entry of infection from other ENT organs — complication of other infectious-viral diseases;
- Various diseases of the nose, including its sinuses and larynx. This includes all types of rhinitis, curvature of the inner wall of the nose and adenoids in children;
- Injuries of the auricle;
- Chills and decreased immunity.

COMPLICATIONS AND CONSEQUENCES OF OTITIS

If only ear pain is observed in otitis, if this disease is not treated correctly or if treatment is not carried out at all, the complications related to it can affect many other organs. Ignoring otitis can lead to terrible consequences - rotting of the lower jaw bone, affecting the salivary gland, and often disability.

But what makes otitis even more dangerous is that it is not always easy to diagnose. For example, in some cases, the disease is not accompanied by pain in the ears. Often due to otitis, the work of the gastrointestinal tract is disturbed. The reason for this is that the abdominal cavity

and the ear are interconnected by one nerve. Therefore, during otitis, especially in children, abdominal pain, vomiting, and constipation may occur. Sometimes appendicitis can be suspected when these symptoms are observed, in which case a surgeon is consulted. But the diagnosis of ear inflammation in young children should always be made by an ENT doctor. If the mother detects only a disturbance in the functioning of the gastrointestinal tract of the child and continues the treatment independently, then otitis can turn into a more serious disease - otoarthritis. This is the transfer of pus to the back of the ear, in which another inflammation is added to the existing inflammation, resulting in swelling of the ears and an even higher temperature. This complication can occur in the following days of the onset of the disease, or after a month. If these signs of otitis are not detected, then meningitis will develop in a few months, so this disease should be given serious attention. Other common complications of otitis include progression of the disease to a chronic stage, impairment of the vestibular apparatus, and deafness. In addition, complications of otitis may include: Meningitis and other intracranial complications (brain abscess, encephalitis, hydrocephalus) - the stage after otoantritis, if measures are not taken in time;

Paresis of facial nerves;

Rupture of the tympanic membrane and blockage of the ear with pus;

Cholesteatoma is a capsule-like tumor consisting of epithelium and keratin formed in the form of a tumor-like cyst, stuck in the ear canal;

Mastoiditis - inflammation of the mastoid tumor, which causes damage to the auditory ossicles in the middle ear;

Disorders of the gastrointestinal tract - abdominal pain, vomiting, diarrhea;

Hearing loss or complete deafness.

Treatment of chronic otitis is very difficult, and the disease significantly worsens the quality of life — hearing is impaired, inflammation and pus always appear in the ears. Often, conservative methods are not enough to treat chronic otitis in adults, and surgery may be required.

DIAGNOSIS OF Otitis

A qualified doctor can diagnose acute otitis without special tools and innovative technologies. The disease is detected by a simple examination of the auditory canal and using a head reflector (mirror with a hole in the center) or an otoscope to diagnose otitis.

HOW IS OTITIS EXTERNAL DIAGNOSED?

In otitis externa, the doctor takes into account the skin of the auricle, the width of the auditory canal, and the gaps in it. If the external ear canal is narrowed, especially if the tympanic membrane is not visible, if the skin is red and liquid discharge is visible inside the ear, this allows the doctor to make a diagnosis of "otitis externa".

How is otitis media diagnosed?

Acute otitis media is also diagnosed through external examination. The doctor examines some specific symptoms of this disease: a reddened eardrum, a decrease in its mobility and the presence of a crack.

These symptoms can be easily checked - the patient swells his cheeks without opening his mouth. "Inflation of the ears" - a technique called the Valsalva maneuver, is constantly used by divers and divers to correct the pressure in the ear. As air enters the drum cavity, the membrane bends significantly. If the drum cavity is filled with liquid, then there will be no bending.

A rupture of the tympanic membrane occurs as a result of the discharge of pus after filling the tympanic cavity and can be observed with the naked eye.

"DIAGNOSIS OF OTITIS INTERNAL" SPECIFIC FEATURE: AUDIOMETRY

Testing hearing with a special device is called audiometry. Also, measuring the pressure inside the ear - tympanometry is used to diagnose chronic otitis.

If the ability to hear is reduced, frequent dizziness, there is a reasonable suspicion of otitis media (inflammation of the labyrinth of the ear). In this case, audiometry is used, and it is necessary to undergo an otorhinolaryngologist and neurologist examination.

X-RAY AND COMPUTER TOMOGRAPHY

In acute otitis media, radiography is used to confirm existing complications of the disease - severe brain inflammation or mastoiditis. If there is a suspicion of dangerous complications, a computer tomography of the bones of the vessels of the brain is necessary.

DETERMINATION OF BACTERIAL FLORA IN OTITIS ENVIRONMENT

Cultivation of bacteria in otitis, at first glance, seems useless. After all, it takes time to grow bacteria, and the result of the analysis will be visible only after 6-7 days. But not all cases of otitis can be resolved with the use of conventional antibiotics, and if the doctor finds out what microorganisms cause otitis, he prescribes certain drugs.

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