



## **COMPREHENSIVE DIAGNOSIS AND TREATMENT OF CHRONIC PURULENT OTITIS MEDIA WITH COMPLICATIONS**

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### **Abstract:**

The problem of timely diagnosis and adequate treatment of patients with chronic inflammation of the middle ear remains important for the otorhinolaryngological service. Domestic and foreign authors confirm that chronic purulent otitis media with complications is a serious disease that requires a comprehensive approach to diagnosis and treatment. The purpose of our study was to determine the strategy of comprehensive diagnosis and treatment for chronic purulent otitis media with complications. 36 patients with chronic purulent otitis media with complications who received treatment in the ENT department of the OMMC were connected. Samarkand. Among them are 8 patients with chronic purulent mesotympanitis, 28 patients with chronic purulent epitympanitis. Of these, 29 patients with local complications (mastoiditis, labyrinthitis, facial nerve paresis), and 7 with intracranial complications (purulent meningitis, epidural abscess of the temporal lobe of the brain, sigmoid sinus synostosis). After surgical treatment, drainage of cerebral abscesses, removal of a blood clot from the sinus and intensive therapy, the condition of patients gradually improved, and normalization of clinical and biochemical parameters was observed, which allows an objective assessment of the effectiveness of treatment. The complex tactics of surgical and drug therapy carried out by us made it possible to improve the results of treatment of complicated chronic purulent otitis media.

**Keywords:** Mesotympanitis, epitympanitis, mastoiditis, complex diagnostics, plastic surgery, trepanation cavity

**RELEVANCE OF THE PROBLEM.** The problem of timely diagnosis and adequate treatment of patients with chronic inflammation of the middle ear remains important for the otorhinolaryngological service. This problem is of social and medical significance for several reasons. According to official WHO statistics, the number of people with chronic diseases of the ear and mastoid process is increasing [4, 6, 11]. Studies conducted by both domestic and foreign scientists indicate that chronic suppurative otitis media (CSOM) occurs in 1.5-4% of the world's population [8,10, 14]. According to the international classification of diseases, chronic inflammatory diseases of the middle ear are divided into chronic tubotympanic purulent otitis media (mesotympanitis H-66.1) and chronic epitympanoantral purulent otitis media (epitympanitis H-66.2). [5,7,12]. With mesotympanitis, catarrhal inflammation of the mucoperiosteum of the middle ear system occurs, and with epitympanitis, a purulent-inflammatory process occurs, affecting the bone tissue of the middle ear and leading to destructive changes in the mastoid processes. Osteomyelitis of the bone structures of the middle ear can lead to various local complications, such as mastoiditis, labyrinthitis, facial nerve paresis, and others. In addition, intracranial complications

occur, such as meningitis, brain and cerebellar abscesses, sinus thrombosis and sepsis. [1,2,13]. Local and intracranial complications resulting from chronic inflammation of the middle ear often have serious consequences, with a mortality rate ranging from 10 to 15% [3,9,14].

**PURPOSE OF THE STUDY.** Our goal was to determine a comprehensive diagnostic and treatment strategy for chronic purulent otitis media with complications.

**MATERIALS AND METHODS OF RESEARCH.** 36 patients with chronic suppurative otitis media with complications who received treatment in the ENT department of the General Medical Medical Center in Samarkand were included in the examination. Among them were 8 patients with chronic purulent mesotympanitis, 28 patients with chronic purulent epitympanitis. Of these, 29 patients had local complications, and 7 patients had intracranial complications. Of these patients, 18 were between 18 and 40 years of age, 13 were between 40 and 60 years of age, and 5 were over 60 years of age. All patients underwent a clinical examination, including an



ENT examination, otomicroscopy, MSCT of the mastoid process, MRI of the brain, consultation with a neurosurgeon, neurologist, and ophthalmologist. Treatment of chronic inflammation of the middle ear with destruction of the bone structure requires surgical intervention. In case of complications with otitis, all patients underwent urgent surgery to eliminate the purulent focus. As a result, complete sanitation of inflammatory foci was carried out, all cells of the mastoid process were opened and purulent and destructively changed bone structures were cleaned.

As a result of such operations, large cavities are formed after trepanation, and healing takes a long time. These large cavities form crusts of dead skin and dry serous discharge. The accumulation of these crusts and secretions can impair the ventilation of the cavity, which can lead to relapse of the inflammatory process and fungal infections. Most researchers believe that after such operations it is necessary to periodically inspect the wound cavity in order to identify and eliminate possible foci of chronic inflammation. To reduce the likelihood of the problem reoccurring after surgery, we performed a T-shaped plasty with a wider expansion of the entrance to the ear canal (according to the Kerner technique), which provided a better view of the cavity and the possibility of intervention to improve healing.

The time required for the growth of granulation tissue in the trepanation cavity has increased. The process of epidermization of the cavity was completed when most of it was filled with granulation tissue.

In addition, we carried out active intensive therapy aimed at combating microbes and also used detoxification, anti-inflammatory, dehydration, desensitizing and restorative medications.

The most frequently used antibiotics were from the group of beta-lactams (including cephalosporins); macrolides were used less frequently, taking into account the sensitivity of the microflora to these drugs. It should be noted that in some cases antibiotics were used in combination, and antibiotics from the group of beta-lactams and intravenous cephalosporins were also administered intramuscularly in high doses. To ensure nutrition and detoxification, restorative and stimulating therapy was carried out, and native plasma was also prescribed intravenously in a volume of 300-500 ml and 5-10% glucose solutions up to 500 ml with the addition of ascorbic acid 5% in a volume of 4.0 ml, cocarboxylase 2.0, albumin solution 20% up to 200 ml. Dehydration and diuretics were also used: glucose 40% in a volume of 20.0 ml, mannitol 20% in a volume of 30.0 ml, diacarb in the

form of tablets of 0.25, taken once a day. Anticoagulants were prescribed, such as heparin in a dose of 10,000 units or clexane in a sodium chloride solution in a volume of 100 ml, administered intravenously, as well as aspirin 0.5 grams 3 times a day orally. Patients were provided with careful care, high-calorie enteral nutrition (if necessary, through a tube), and also, if necessary, symptomatic therapy.

**RESULTS AND ITS DISCUSSION.** Among the patients studied, the following complications were found; Mastoiditis was detected in 9 patients, labyrinthitis was diagnosed in 7 patients, facial nerve paresis was detected in 5 patients. Of the intracranial complications, otogenic purulent meningitis was detected in 1 patient, otogenic epidural abscess of the temporal lobe of the brain was detected in 2 patients, otogenic sinus thrombosis of the sigmoid sinus was detected in 2 patients

In most patients, after treatment the trepanation cavity was restored to the correct shape. According to most scientists, when performing radical ear surgery, it is necessary to strive for maximum radicalization. However, other scientists believe that bone and other structures, such as the auditory ossicles, remnants of the tympanic membrane, the posterior bony wall of the external auditory canal, and the lateral wall of the attic, which are necessary for tympanoplasty, should be preserved as much as possible.

When performing classical radical surgery on the ear to treat CHSO, it is possible to create a new chain of auditory ossicles and perform operations to improve hearing. Classic radical surgery involves complete removal of chronically inflamed lesions, opening of all cells of the middle ear system and creation of a single surgical cavity. Failure to follow this simple surgical principle does not allow one to count on achieving positive results in sanitation and functional terms.

After surgical treatment, drainage of brain abscesses, removal of a blood clot from the sinus and intensive therapy, the patients' condition gradually improved, and normalization of clinical and biochemical parameters was observed, which allows for an objective assessment of the effectiveness of treatment.

**CONCLUSION:** Our use of complex diagnostics, surgical and intensive therapy has improved the results of treatment of complicated chronic suppurative otitis media.

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