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Complex Treatment of Complicated Chronic Purulent Epitympanitis

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Resume. The authors pay special attention to the fact that in chronic purulent epitympanitis, bone tissue is involved in the inflammatory process, and a chronic purulent-destructive change occurs in the cells of the mastoid process. Osteomyelitis of the bones leads to local and intracranial complications. Therefore, during sanitizing operations of the middle ear in epitympanitis, it is necessary to radically remove all foci of destructively altered structures of the middle ear system with exposure of the dura mater of the middle and posterior cranial fossae. Postoperative management of patients should be directed to intensive care.

Keywords. chronic suppurative otitis media, epitympanitis, local and intracranial complications, radical ear surgery, sanitizing operations.

The urgency of the problem. According to the international classification of diseases of chronic purulent otitis media, it is divided into two main forms: chronic tubotympanal purulent otitis media, mesotympanitis H-66.1 and chronic epitympanoantral purulent otitis media, epitympanitis H-66.2 [1,5,6,10,13]
With mesotympanitis - catarrhal inflammation of the mucoperiosteal system of the middle ear occurs, epitympanitis - a purulent-inflammatory process involves the bone tissue of the middle ear with destructive changes in the mastoid processes. Due to osteomyelitis of the bone structures of the middle ear, local (mastoiditis, labyrinthitis, paresis of the facial nerve, etc.) and intracranial complications (meningitis, abscesses of the brain and cerebellum, sinus thrombosis, sepsis) occur.
Local and intracranial complications of an otogenic nature often lead to irreversible consequences and mortality is from 10 to 15%. [2,3,4,7,8,9,11,12].
The aim of our work was to choose the tactics of complex treatment for chronic purulent epitympanitis with complications.

Materials and research methods. Under our supervision in the ENT department of the OMMC were 28 patients with chronic purulent epiimpanitis. Of these, 21 patients with local, 7 patients with intracranial complications. At the age of 18 - 40 years - 14 patients, 40 - 60 years - 9 patients and older than 60 years - 5 patients.
All patients underwent a general clinical study, MSCT of the mastoid process, MRI of the brain, consultation of a neurosurgeon, neuropathologist, oculist, etc.

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Treatment for chronic inflammation of the middle ear with destruction of the bone structure of the middle ear should be surgical.All patients with otogenic complication underwent emergency surgical intervention to eliminate the purulent focus. At the same time, the foci of purulent inflammation were radically sanitized, all the cells of the mastoid process were opened, and the lining cells of the mucoperiost were cleaned.

But after such operations, very large trepanation cavities are formed and epidermization can be lengthy. After epidermization, crusts accumulate in large cavities from the exfoliating epidermis and sulfur from the dried serous effusion. When the cavity is filled with crusts and sulfur, the ventilation of the cavity is disturbed, which leads to the resumption of the suppurative process and fungal infections.

Many otosurgeons believe that after performing such operations, it is necessary to periodically revise the operating cavity in order to identify and eliminate foci of chronic inflammation remaining in it.

To reduce postoperative recurrences during surgery, it is necessary to make a T-shaped plasty as wide as possible, widening the entrance to the auditory canal (plasty of the auditory canal according to Kerner), which provides a good overview of the cavity and the implementation of measures to correct healing. The terms of growth in the trepanation cavity of granulation tissue are lengthened. Epidermization of the burr cavity is completed when most of the cavity is filled with granulation tissue.

In addition, intensive (antimicrobial, detoxification, anti-inflammatory, dehydration, desensitizing and restorative) therapy was carried out.The most commonly used antibiotics are beta-lactam series, cephalosporins, rarely macrolides, taking into account the sensitivity of microflora to antibiotics. In order to provide nutrition and detoxification, general strengthening and stimulating therapy was carried out, intravenous native plasma was prescribed 300-500 ml., 5-10% glucose solution up to 500 ml. with the addition of ascorbic acid 5% -4.0 cocarboxylase 2.0 albumin solution 20% up to 200 ml. Introduced dehydration and diuretics; glucose 40%-20.0 mannitol 20%-30.0 diacarb 0.25 1 tablet 1 time per day. Anticoagulants were prescribed in the form of heparin, 10 thousand units or clexane in 100 ml of sodium chloride solution intravenously with the addition of aspirin 0.5 g 3 times a day. Patients were provided with meticulous care, high-calorie enteral nutrition (if necessary, through a tube) and, if indicated, symptomatic therapy was prescribed.

Results and its discussion. Among those examined, 17 patients were admitted to the clinic in a moderate condition, 8 in a serious condition, and 3 patients in an extremely serious condition.

Among the surveyed local complications revealed mastoiditis in 9 patients, labyrinthitis in 7 patients and paresis of the facial nerve in 5 patients. Of the intracranial complications, otogenic purulent meningitis was detected in 1 patient, otogenic epidural abscess of the high lobe of the brain in 2 patients, and otogenic sinus thrombosis of the sigmoid sinus in 2 patients.

In the majority of patients after treatment (epidermization), the burr cavity had the correct shape. According to most scientists, when performing a radical operation on the ear, maximum radicalization is necessary. Other scientists believe that it is necessary to preserve as much as possible the bone and other structures, the auditory ossicles, the remnants of the tympanic membrane, the posterior bone wall of the external auditory canal, the lateral wall of the attic), which are necessary for tympanoplasty.

The performed classical radical ear surgery for epitympanitis does not exclude the possibility of creating a new chain of auditory ossicles and performing hearing-improving operations.

Performing a classic radical operation involves the most complete removal of foci of chronic inflammation, a radical opening of all cells of the middle ear system and the creation of a single operating cavity. Failure to comply with this simple principle of surgery cannot be expected to achieve positive sanitizing and functional results.After surgical treatment, drainage of brain abscesses, removal of a thrombus from the sinus, and intensive therapy, the general condition of patients gradually improved and clinical and biochemical parameters normalized, which makes it possible to objectively determine the effectiveness of treatment.

Conclusions: Thus, the presented system of complex emergency surgical and intensive care has improved the results of treatment for chronic purulent epitympanitis with complications.

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