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OPTIMIZATION OF DIAGNOSTIC AND TREATMENT METHODS FOR EXUDATIVE OTITIS MEDIA IN PATIENTS WITH BENIGN TUMORS OF THE NASOPHARYNX AND SINONASAL REGION

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Abstract:

In the structure of general ENT pathology, diseases affecting the nose and paranasal sinuses come first, followed by diseases affecting the ears. At the same time, most ear diseases are associated with the development of various types of hearing loss not only in the acute phase of the disease, but also often acquire a chronic character. According to epidemiological data, more than half of people suffering from hearing loss are of working age, which determines the extreme importance of effective therapies for these diseases from both a social and economic point of view.

Keywords: exudative otitis media, benign neoplasms, nasopharynx, paranasal sinuses, diagnosis, treatment, tubar dysfunction

INTRODUCTION: Exudative otitis media (ESO) remains one of the urgent problems of modern otorhinolaryngology, attracting the attention of specialists with its prevalence and significant impact on the quality of life of patients. According to WHO, the incidence of ESO ranges from 15 to 30% among all diseases of the middle ear, while in patients with neoplasms of the nasopharynx and sinonasal region, this figure reaches 65-80%.

The diagnosis and treatment of ESR in patients with benign neoplasms of the nasopharynx and sinonasal region is particularly difficult. The presence of a tumor process significantly complicates the visualization and assessment of the condition of the structures of the middle ear, and also creates a mechanical obstacle to the normal functioning of the auditory tube, which greatly complicates the choice of optimal treatment tactics.

Despite the successes achieved in the diagnosis and treatment of ESO, there are still a number of unresolved issues related to the peculiarities of the course of the disease with concomitant neoplasms. Existing diagnostic algorithms do not fully take into account the effect of the tumor process on the development and course of exudative otitis media, which can lead to inefficiency of the treatment and the development of complications.

The socio-economic significance of the problem is determined not only by the high prevalence of the disease, but also by a significant decrease in the quality of life of patients associated with impaired auditory function. A prolonged course of the disease can lead to persistent hearing loss, which is especially critical for patients of working age and children.

In this regard, optimizing the methods of diagnosis and treatment of exudative otitis media in patients with benign neoplasms of the nasopharynx and sinonasal region is an urgent task of modern otorhinolaryngology, the solution of which will increase the effectiveness of treatment and improve the prognosis of the disease.

The World Health Organization (WHO) predicts that the number of people with hearing loss will increase by more than 30% by 2030. Also, a third of all cases of hearing loss are associated with diseases of the middle ear. In recent decades, the number of cases of exudative otitis media (ESO) has increased, accounting for 15-17% of all cases of ear diseases. ESO is characterized by a prolonged course, resistance to traditional treatment methods, and a tendency to relapse after treatment. In addition, ESO is associated with irreversible hearing loss, which can be caused by both the disease itself and its consequences. This feature of ESO is of great importance due to the special importance of the modern concept of "quality of life" in medicine. According to the published literature, ESO is

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often found among the child population. However, recent epidemiological data indicate an increase in the frequency of ESR in the structure of ENT pathology in the adult population3.

ESO is a polyethological disease that is often caused by a combination of many different causes contributing to its development. The development of ESO is due not only to the effects of infectious factors on the mucous membrane of the middle ear, but also to physical (barometric pressure fluctuations), chemical (gastroesophageal reflux) and biological (nasopharyngeal tumors) factors, and especially their combination.

THE AIM OF THE STUDY was to optimize the methods of diagnosis and treatment of exudative otitis media in patients with benign tumors of the nasopharynx and sinonasal region

RESEARCH MATERIALS AND METHODS: a general description of the clinical material is given, laboratory and statistical research methods are described in detail. The research work was based on the results of the examination and comprehensive treatment of 103 patients with exudative otitis media who applied to the Department of Otorhinolaryngology of the 1st clinic of the Samarkand State Medical Institute in the period from 2021 to 2024, as well as 20 practically healthy people. In our work, we used the following criteria for selecting patients: clinical symptoms – complaints of hearing impairment, tinnitus, a feeling of "stuffiness" of the ear, sensations of "fluid transfusion" in the ear; otoscopic data: cloudy, altered eardrum – there is a retraction or bulging, the presence of fluid levels and the presence of air bubbles in the eardrum cavities; hearing loss according to the conclusion of threshold tonal audiometry; pathological types of tympanograms (type B).

Three groups were identified: 55 patients with exudative otitis media (ESO) with benign neoplasms of the nose (DNN), paranasal sinuses (ONP) and nasopharynx (NG) made up the first main group, 48 patients with 34

exudative otitis media in chronic rhinosinusitis (CRS) - the comparison group II, as well as 20 practically healthy individuals made up the control group. 27 patients of group IA were prescribed traditional treatment of exudative otitis media after surgical treatment. 28 patients of group IB (group with complex therapy) Together with the traditional treatment, the Gepon immunomodulator and Sinulor nasal spray were used.

THE RESULTS OF THE STUDY: All patients of the above groups underwent otorhinolaryngological, audiological examination and laboratory research methods. The otorhinolaryngological examination consisted of a detailed collection of complaints and anamnesis of the disease, classical examination of ENT organs, otomicroscopy, examination of the function of the auditory tubes, tuning fork tests. To examine the smallest features and details of the anatomical structure of the eardrum, both normal and pathological, in our work we used an ENT harvester from Suntem (China), as well as rigid endoscopes with diameters of 4.0 and 2.7 mm with an inspection angle of 0 ° (Delon, Germany). The LED 300 computer system (Delon, Germany) was used to archive photo and video data.

The audiological examination included tonal threshold audiometry with detailed analysis of air and bone conduction, air-bone rupture and tympanometry. Laboratory methods included: bacteriological examination of the smear, the content of the main classes of immunoglobulins in blood serum by Mancini radial immunodiffusion, as well as the subpopulation composition of peripheral blood lymphocytes. In particular, the relative and absolute number of the following cell types was determined by immunofluorescence: CD3+ (T-lymphocytes); CD4+ (helper T cells); CD8+ (killer suppressor T cells); CD19+ (B lymphocytes), the cellular composition of the middle ear exudate was evaluated and HCT (nitrosinium tetrazolium) was administered- the test. Statistical processing of the obtained results was carried out using the modern statistical software R studio version 3.6.2 for the Windows 10 operating system with a confidence level of $p<0.05$.

In our study, we drew attention to the otomicroscopic picture of patients with ESO in DNN, ONP and NG: against the background of a cloudy, altered eardrum, there is a swollen vascular network in an arrangement very similar to the spokes of a bicycle wheel, this network covers an area of 50% or more of the lower part of the membrane – a sign of a "spoked wheel" (Figure-1)

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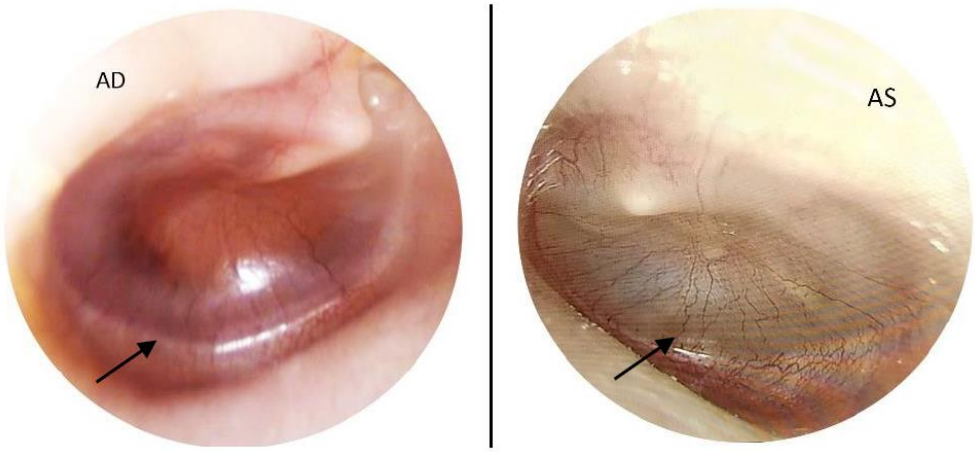

Figure-1. A sign of a "spoke wheel" is an otomicroscopic picture of exudative otitis media with benign neoplasms of the nose, paranasal sinuses and nasopharynx

When analyzing the otomicroscopic picture, each ear was evaluated separately: in the main group of 69 ears, the sign of a "spoke wheel" was detected in 64 cases, which amounted to sensitivity of 92.7% (64/69), and in the control group without the disease, consisting of 40 ears, in 38 cases the studied sign was not detected, i.e. the specificity of the sign was 95%. (38/40), then the diagnostic value was determined, which was 93.6% (102/109). In the comparison group of 70 ears, the sign of a "spoked wheel" was noted only in 16 cases, which accounted for 22.8% (16/70) of sensitivity, the diagnostic value was estimated at 49% (54/110).

CONCLUSIONS: With exudative otitis media on the background of benign neoplasms of the nose, paranasal sinuses and nasopharynx, along with gradually increasing otological symptoms characterized by unilateral impairment of the functional state of the ear 74.5% (impaired ventilation function of the auditory tube III-IV degree, conductive and mixed type of hearing loss I-II degree, the presence of pathological tympanograms type B), there are nasal symptoms (impaired nasal breathing, feeling of a foreign body, nosebleeds). The combination of these symptoms may be a criterion for cancer alertness. Exudative otitis media in benign neoplasms of the nose, paranasal sinuses and nasopharynx is characterized by prolonged presence of exudate in the tympanic cavity, as evidenced by the characteristic endoscopic feature of the "spoke wheel", as the sensitivity of the method was 92.7%, specificity 95%, and the diagnostic value of the method 93.6%.

LIST OF LITERATURE

1. Alekseeva N.S., Palchun V.T. Exudative otitis media: diagnosis and treatment // Bulletin of otorhinolaryngology. 2021. No.86(4). pp. 68-73.
2. Boboshko M.Yu., Lopotko A.I. Auditory tube. SPb.: SpetsLit, 2020. 720 p.
3. Garashchenko T.I., Karneeva O.V. Modern concepts of diagnosis and treatment of exudative otitis media // Russian otorhinolaryngology. 2022. No. 17(2). pp. 89-96.
4. Daikhes N.A., Diab H.M. Benign neoplasms of the nose and paranasal sinuses // Russian Rhinology. 2021. No.29(1). pp. 42-48.
5. Egorov V.I., Kozarenko A.V. Diagnosis and surgical treatment of nasopharyngeal neoplasms // Medical advice. 2021. No. 6. pp. 156-163.
6. Karpishchenko S.A., Vereshchagina O.E. Endoscopic diagnosis of nasopharyngeal diseases // Folia Otorhinolaryngologiae. 2020. No.26(2). pp. 4-11.
7. Kryukov A.I., Kunelskaya N.L. Clinical recommendations for the diagnosis and treatment of exudative otitis media // Russian Medical Journal. 2021. No. 27(3). pp. 178-184.Abdel-Aziz M., Rashed M. Benign tumors of the nasopharynx: Clinical features and management // Int J Pediatr Otorhinolaryngol. 2021;143:110680.
8. Bluestone C.D., Klein J.O. Otitis Media in Infants and Children. 6th ed. Hamilton: BC Decker; 2020.
9. Chole R.A., Sharon J.D. Chronic Otitis Media, Mastoiditis, and Petrositis // Clinical Otology. 2022;4:227-240.
10. Kong S.K., Lee I.W. New insights into the pathophysiology of otitis media with effusion // Int J Pediatr Otorhinolaryngol. 2020;138:110248.
11. Liming B.J., Ryan M.W. Diagnosis and Management of Nasopharyngeal Tumors // Med Clin North Am. 2021;105(5):855-867.
12. Rosenfeld R.M., Shin J.J. Clinical Practice Guideline: Otitis Media with Effusion (Update)

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// Otolaryngol Head Neck Surg. 2021;154(1):S1-S41.
13. Schilder A.G., Chonmaitree T. Otitis media // Lancet. 2021;397(10273):450-465.
14. Thomson J., Hartnick C.J. Diagnostic approaches to pediatric otitis media // Curr Opin Otolaryngol Head Neck Surg. 2022;30(6):455-460.