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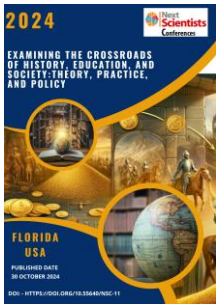

AUDIOLOGICAL CHARACTERISTICS OF ACUTE SENSORINEURAL HEARING LOSS OF VARIOUS FORMS

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ABSTRACT

One of the main problems of modern clinical audiology is sensorineural hearing loss - a hearing pathology associated with damage to the sound-perceiving apparatus, when for one reason or another the process of converting mechanical vibrations into energy of nerve impulses and its further transportation from the auditory receptors to the corresponding centers of the cerebral cortex is disrupted.

KEYWORDS: sensorineural hearing loss, tinnitus, audiometry.

INTRODUCTION

We used audiometric studies of subjective tinnitus and determined its frequency characteristics and intensity in 82 patients with ASHL of various etiologies. Of the 82, 67 (81.7%) patients were found to have subjective noise.

In the study of the frequency characteristics of subjective noise, we found the following: out of 82 patients, 61 (74.4%) had mid-frequency and high-frequency noise, with ASHL in 31 (37.8%), which is typical of perceptual hearing loss. Tinnitus prevails in patients with ASHL. Depending on the etiologic factor, the following features were revealed. With allergic etiology, 22 (26.8%) of 31 patients had low-frequency subjective noise, the intensity of which fluctuated from 10 to 50 dB, which is not typical for other forms of sensorineural hearing loss. According to our data, hearing tests for whispered and spoken speech have a certain diagnostic value in the preliminary diagnosis of various forms of ASHL. With this simplest determination of the hearing level in the examined patients, we were able to identify the following features:

Firstly, with hearing loss due to allergies, the difference in the perception of whispered and spoken speech was usually significantly smaller than with hearing loss due to OST of other etiologies.

Secondly, when the healthy ear was muffled with a Barany rattle, speech intelligibility in patients with ASHL of allergic etiology, unlike other forms of ASHL, changed little.

Comparing the data of tone-threshold audiometry in patients with ASHL of various etiologies, the following was established: the configurations of the audiogram curves resemble all the signs of sensorineural hearing loss, i.e. descending, horizontal and horizontally descending with the absence of a bone-air gap. As for patients with ASHL of allergic, traumatic (mine-explosive) and infectious etiology, their characteristic feature is the presence of a bone-air gap. Our observations show that the majority of patients (45 (54.9%) out of 82 examined individuals with ASHL of infectious, vascular, drug-induced, traumatic etiology and hearing loss due to

osteochondrosis of the cervical spine) have a lack of 100% speech intelligibility at threshold and suprathreshold intensity of speech audiometry. In patients with ASHL, no particular difference was found. At the same time, in 24 (85.7%) of the majority of individuals with ASHL of an allergic nature, compared with ASHL of another etiology, 100% speech intelligibility is determined and the nature of the curve configuration in these patients corresponds to the disorders of the sound conduction system. This indicates that with ASHL of an allergic nature, the function of the cochlear receptor is preserved in most patients. We see an explanation for the obtained facts in the violation of intracochlear conduction and, possibly, functional changes in the receptor. An allergic factor can contribute to this: since the first studies of A.D. Ado and his colleagues on allergy as an irritant of the nervous system, it is accepted to consider the possibility of their active influence on receptor formations (vascular, respiratory receptors, etc.), then this direction was developed in otolaryngology. Science currently has extensive data on shifts in the function of the auditory receptor, not to mention other formations of the inner ear, under conditions of allergization of the organism, which were obtained both in the experiment and partly confirmed by clinical observations. The disappearance of the intra-aural acoustic reflex discovered by us, in such conditions confirms the data on this issue.

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