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CHARACTERISTICS OF HEARING ANALYZER MASKER IMMUNITY WHILE MENIERE'S DISEASE

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Introduction

To clarify the pathogenesis, early and, in particular, differentional diagnosis of unilateral Meniere's hearing loss, of special interest is the hearing function of the contrlateral, or healthy ear, for the investigation of which we used the method of speech audiometry in maskers. The condition of absolute silence in daily life is extremely rare. Daily man perceives speech signals not in isolation, but in different acoustic environments in which the hearing system has to identificate and distinguish the useful information, depending on the ability of hearing analyser to resist maskers. Hearing investigation in various acoustic interference near to everyday conditions has direct diagnostical importance.

Methods

The study involved 15 patients aged 26-58 years, with typical complaints and with the diagnosis of unilateral hearing loss. Masker immunity of the acoustic analyzer was determined by speech audiometry in free field conditions without interference, in white noise and extraneous speech, separately for the sick and the healthy ear, silencing the contralateral ear.

Results

The definitions of speech discrimination of sick ear on the background of noise and speech masker are consistent with those existing in the literature. Examination of the healthy ear although attained 100% intelligibility, but in contrast with the control group patients with normal hearing, even without any interference phonemic regression phenomenon up to 93,6 + -2,2% was observed. On the background noise of 60 dB intelligibility remained the same as in the silence. The degree of phonemic regression on the background of 60 dB speech masker was expressed in somewhat higher extent than on the background of noise-respectively 87 + -2.8% and 93.5 + -2.5%.

Conclusions

Thus, as a result of our investigations we revealed that the intelligibility deteriorated with the phenomenon of phonemic regression, or violation of masker immunity on the background of noise and speech maskers among the patients with Meniere's disease of both sick and healthy ear with prevalence of masking effect of speech. Taking into consideration absence of hearing loss according to routine (tonal) audiometry of the healthy ear, received data indicate bilateral disease and can be used for differential diagnosis of unilateral hearing loss.