Evaluation of vestibular function in idiopathic sudden sensorineural hearing loss

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ABSTRACT

INTRODUCTION

- About 30 percent to 40 percent of patients with idiopathic sudden sensorineural hearing loss (SSHL) have accompanying vertigo. The presence of vertigo was important prognosis factor in SSHL. Because accompanying vertigo is mostly subjective and transient, it is hard to evaluate the characteristic of dizziness and needed to get an objective vestibular function. We investigated if the results of vestibular evoked myogenic potential (VEMP) testing and caloric testing was correlated with the symptom and prognosis in idiopathic SSHL with or without vertigo.

METHODS AND MATERIALS

- Degree of initial hearing loss were categorized as mild, moderate, moderate-severe, severe, profound group. Types of initial audiograms were categorized as high tone loss, low tone loss, flat scale and sloping type. We analyzed the association of the VEMP and caloric test findings with degree of hearing loss, type of audiogram, and hearing recovery in two month.

RESULTS

- The more the hearing loss were severe, the more the rate of abnormal VEMP response (P=0.003). The rate VEMP and caloric response asymmetry (2 standard deviation : 23.5%) was significant in patients with profound hearing loss.

CONCLUSIONS

- The objective measurements of vestibular function such as caloric test and VEMP can be used as a prognostic indicator in idiopathic sudden SNHL.