COMPARATIVE EVALUATION BETWEEN CALORIC TEST, VEMP AND DDPOAE IN DIAGNOSING MENIERE'S DISEASE

M.Z. Sadi  A. Mouzali  Kh. Ouennoughi  F. Djadeane  M.S. Haraoubia  O. Zemirli
Beni Messous Hospital  Algiers  Algeria

Introduction

Because endolymphatic hydrops causes cochlear malfunction, and both otoacoustic emissions and vestibular evoked myogenic potential (VEMP) measure, respectively, specific cochlear and saccular activities, some insight into the pathology of Meniere's disease (MD) might be gained by using these two test modalities. Specifically, the involvement of cochlear outer hair cells in patients with endolymphatic hydrops may be detected. The target of our study is to determine the sensitivity and the selectivity of both methods.

Method

The study consisted to select patients diagnosed MD, we have included 80 patients: 25 classified probable MD (classe II) and 55 classified definite MD (classe III) according to classification of special Committee on Hearing and Equilibrium of the American Academy of Otolaryngology (AAOO) 1995. We performed to all patients: caloric test, c VEMP and shift DPOAE. MRI was normal in all patients.

Discussion

VEMP is abnormal in only 60% of patients. This may be due to the absence of hydrops at the saccula area at the beginning of the pathology (class II).

63 patients experienced a phase shift, among them 11 patients including DPA cVEMP were normal (11 patients were classified as II).

The DPOAE shifts are more sensitive and specific for early hydrops pathology when the cochlea is the only one affected. However, cVEMP tests are more easier and simpler to perform. They do not require several re-examination to obtain interpretable results as for the Shift DPOAE.

Conclusion

VEMP and the DPAOE Shift are needed to be a part of an additional tests of Ménière's disease diagnosis. The shift DPAOE are more sensitive to cochlear hydrops but only in the three (03) weeks after the vertiginous crisis. The Complementarity of both tests is a major tool in the diagnosis of labyrinhyhin hydrops in Ménière’s disease.