

Abstracts of 27th Annual National Conference of the Indian Society of Otolology

November 16-18, 2018
Mysuru, Karnataka, India

Ann Otol Neurotol 2019;2:S1–S17

A0001: Clinical Study to Determine Occult Vestibular Dysfunction in Patients of Chronic Otitis Media using Computerized Static Posturography

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Introduction Various studies have shown high incidence of subjective vestibular dysfunction in cases of chronic otitis media (COM). Evaluation of vestibular dysfunction in chronic otitis media patients is becoming an integral part of comprehensive management of COM. In our study, we have evaluated vestibular dysfunction in patients with COM, using computerized static posturography, an objective technique in contrast to other subjective tests of vestibular dysfunction.

Aims and Objectives To evaluate vestibular dysfunction in patients with chronic otitis media using computerized static posturography.

Materials and Methods In this prospective case-control study done over a period of 1.5 years, 50 cases of COM and 50 healthy controls were included and they underwent computerized static posturography. Parameters taken were somesthetic, visual, and vestibular scores in both antero-posterior (AP) and mediolateral (ML) axes; and in combined axis (AP + ML) and these scores were compared with those of healthy controls.

Results A total of 50 cases of COM (average disease period: 5.7 years), of both sexes, with age range of 15 to 60 years and mean age of 31.58 years were taken. On analyzing above mentioned parameters using SPSS software, we found no significant difference in vestibular function in cases of COM as compared with healthy individuals.

Discussion The outcome of computerized static posturography can be quantified with respect to changes in center-of-force sway amplitude, distance, or velocity, which, by virtue of not being burdened by subjective interpretation, its results can be, documented both graphically and numerically.

Conclusion This study, further solidified with objective evidence, raises a question on COM without complications being directly responsible for vestibular dysfunction.

Clinical Significance Hence, based on the results of this study, we observe that there is no significant difference

in vestibular function in cases of COM as compared with healthy individuals when assessed using static posturography. This study has evaluated vestibular aspect of balance; the results of visual and somesthetic inputs also have been studied to provide a comprehensive balance evaluation. Though in future, a larger sample size and including both static and dynamic posturography in balance evaluation would give better picture.

A0002: Diameter of Long Process of Incus in Choosing Stapes Prosthesis

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Aim To study the diameter of long process of incus in stapes surgery and its utility in determining stapes prosthesis.

Materials and Methods Long process of incus diameter was measured in 25 patients undergoing stapes surgery in a tertiary care hospital. Specially designed instruments (both straight and curved) were used to measure the long process of incus diameter 1.5 mm from the tip of long process. According to the diameter measured at surgery the prosthesis was selected and crimped on the long process of incus.

Results The crimping procedure is a decisive step during stapes surgery because loose connection between prosthesis and incus will lead to absorption of sound energy leading to conductive hearing loss and microtrauma of the long process causing necrosis of long process of incus. Optimum fitting depends on the diameter and form of long process of incus.

Conclusion The purpose of this study is to provide new anatomic information on the long process of incus with special regard to the area of crimping in cases of stapes prosthesis. The long process of incus had a maximum diameter of 1.15 mm and a minimum diameter of 0.52 mm at a level 1.5 mm from the long process. Another possibility to prevent compression of the feeding blood vessels is to develop a new instrument allowing best possible crimping of a prosthesis and keeping the anteromedial quarter of the long process of incus free.