OTOACOUSTIC EMISSION IN CASES OF PRESBYACUOSIS

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Abstract

This study conducted on 100 cases divided into two groups the study group included 60 patients with mean age 68.48% ± 8.8; the control group included 40 persons with mean age 33.90% ± 7.77 years, all of them subjected to pure tone audiometry, immittance, and transient evoked otoacoustic emission (TEOAE). All patients showed diminution of hearing at all frequencies, all patients had normal tympanogram (Type A) except 20% showed negative middle ear pressure (Type C). 55.75% of the patients showed absent acoustic reflex. The study group showed absent 50% of TEOAE at 1, 2, 3 and 4 KHz with decreased amplitude and wave reproducibility. We concluded that TEOAE response decreased substantially with age and there was a good correlation between band reproducibility and pure tone audiometry also between band reproducibility and acoustic reflex at 1 KHz and there was a good relationship between absence of acoustic reflex and absence of TEOAE at 1, 2 and 4 KHz.

Introduction

Presbyacusis is considered one of the common types of hearing loss which develops gradually with age (Jonsson et al., 1998). The decline in hearing acuity is particularly pronounced during the decade from 70 to 80 years of age. At 70, most subjects have no or only minor hearing problems, but at age 80 difficulties in hearing are common. Presbyacusis could be viewed as occurring in four pathologic types or in combinations. Three types are based on visual correlations of audiograms and cytococholeograsms. Thus abrupt high tone threshold losses