

## PREVALENCE OF HEARING LOSS AMONG ELDERLY WITH METABOLIC DISEASE IN TERENGGANU

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### ABSTRACT

**Introduction:** Hearing loss among elderly with metabolic disease is not widely been studied. However in this study, we are focusing on hypertension and diabetes mellitus without differentiating between types. Some of studies associated it with the medications taken that contribute to hearing loss. However, in these studies, we are not focusing on medication taken among subject but to configure the impact of metabolic diseases to hearing. The purpose of this paper is to investigate the prevalence of hearing loss among elderly with metabolic disease in Terengganu. In this study, the elderly who having metabolic disease is identified as having a cluster of hypertension, and diabetes mellitus (Type I and Type II).

**Methods:** The retrospective study was carried out of all 175 elderly ( $\geq 60$  years old). All has attended audiology clinic in Hospital Sultanah Nur Zahirah, Hospital Kemaman and Hospital Besut from 1<sup>st</sup> August until 30<sup>th</sup> November 2017. The data were extracted from *Program Saringan Pendengaran Berimpak Tinggi Bagi Perkhidmatan (ORL) 2017*. All subjects has done pure tone audiometry (0.5, 1, 2, 4 and 8 Hz) and tympanometry. They have been diagnosed to have normal hearing and hearing loss (including sensorineural (SNHL), conductive (CHL) and mixed hearing loss (MHL)) at one or both ears.

**Results:** In total of 175 subjects, there are 161 subjects having hearing loss, 10 with unilateral hearing loss and 10 subjects with normal hearing. Among subjects with hearing loss, there are 142 subjects are having SNHL, 5 subjects with CHL and 47 with MHL.

**Conclusion:** This study indicated that, most of the subjects (81.14%) are diagnosed to have sensorineural hearing loss. It is recognized that further initiatives and studies will have to be performed to better define the relation between metabolic disorders and the hearing status among them.

**Keywords:** Hearing loss, Metabolic disease, Hypertension, Diabetes Mellitus

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