IJMDAS

International Journal of Medical, Dental, and Allied Health Sciences

Original Article

Publication History:
Published 22/10/2021

DOI:
10.5281/zenodo.5792226

Corresponding Author:
Dr. Nadar Hussain,
SKBZ/CMH Rawalakot
nadarh4@gmail.com

Cite this article as:
Answer F, Khan RNA, Hussain N. Prevalence of hearing loss among children presenting in ENT outdoor department. Int. J. Med. Dent. Allied Health Sci. 2021;3(10).e172

PREVALENCE OF HEARING LOSS AMONG CHILDREN PRESENTING IN ENT OUTDOOR DEPARTMENT

AUTHORS:
1. DR. FIZZA ANWER, CMH HOSPITAL MUZAFFARABAD AJK
2. DR. RAJA NAVEED AMJID KHAN, ABBAS INSTITUTE OF MEDICAL SCIENCES MUZAFFARABAD AJK
3. DR. NADAR HUSSAIN, SKBZ/CMH RAWALAKOT

ABSTRACT:
Hearing impairment is the most frequent sensory deficit in human populations, affecting more than 250 million people in the world. Consequences of hearing impairment include inability to interpret speech sounds, often producing a reduced ability to communicate, delay in language acquisition, economic and educational disadvantage, social isolation and stigmatization. This cross-sectional study was carried out in children presenting in ear-nose-throat outdoor department. All the children having hearing issues underwent audiometric tests. The data was analyzed using SPSS Ver. 23.0. After initial examination, audiometry of 213 children were done. The mean age of children was 9.23±2.34 years. Fifty-eight (27.23%) had mild hearing loss, 24 (11.27%) had moderate hearing loss. 30 (14.08%) had moderately severe hearing loss and 9 (4.23%) had severe hearing loss.

Keywords: Hearing Loss, Hearing Impairment

INTRODUCTION:

Hearing impairment is the most frequent sensory deficit in human populations, affecting more than 250 million people in the world. Consequences of hearing impairment include inability to interpret speech sounds, often producing a reduced ability to communicate, delay in language acquisition, economic and educational disadvantage, social isolation and stigmatisation. It may be worsened by some medical conditions such as hypothyroidism, diabetes, and possibly hyperlipidemia, among others. Most congenital and childhood onset hearing loss is included as sequelae to various disease and injury causes already included in the Global Burden of Disease Study. Examples include otitis media, memingitis, rubella, congenital anomalies and non-syndromal inherited hearing loss. Adult-onset hearing loss was not separately analysed in the original Global Burden of Disease for 1990. The leading causes of adult-onset hearing loss are presbycusis (age related hearing loss) followed by noise-induced hearing loss. In the Version 1 estimates for the Global Burden of Disease 2000 study, published in the World Health Report 2001, adult-onset hearing loss was the 2nd leading cause of YLDs at global level, accounting for 4.6% of total global YLDs. There is a diversity of definitions of hearing impairment, thus, comparison among studies is difficult. WHO classified hearing impairment according to the pure tone average in the better hearing ear. Categories of hearing impairment ranges from “no impairment” to “profound impairment” according the threshold level. The hearing threshold level, using audiometry, is to be taken as the better ear average for four frequencies 0.5, 1, 2, and 4 kHz (1-3). The goal of this study was to assess the prevalence of hearing impairment among the children presenting ENT department.

MATERIAL AND METHODS:

This cross-sectional study was carried out in children presenting in ear-nose-throat outdoor department. All the children having hearing issues underwent

audiometric tests. Mild hearing loss was taken as 20 to 40dB hearing loss (HL), moderate loss was taken as 40 to 55dB HL, moderately severe loss was taken as 55 to 70dB HL, severe loss was taken as 70 to 90dB HL, and profound loss was taken as above 90dB HL. All the data was noted on a predefined proforma. The data was later analyzed using SPSS Ver. 23.0. The categorical variables were presented as frequency and percentages. The quantitative variables were presented as mean and standard deviation.

RESULTS:

A total of 512 children presented with different complaints of hearing loss. After initial examination, audiometry of 213 children were done. The mean age of children was 9.23±2.34 years. The minimum age was 4 years and the maximum age was 11 years. The distribution of hearing loss among children is presented in table-I.

Hearing Loss	Number of Children	%age
Normal	92	43.19%
Mild	58	27.23%
Moderate	24	11.27%
Moderately Severe	30	14.08%
Severe	9	4.23%
Total	**213**	**100.00%**

DISCUSSION:

It is estimated that half of cases of hearing loss are preventable. About 60% of hearing loss in children under the age of 15 can be avoided. There are a number of effective preventative strategies, including: immunization against rubella to prevent congenital rubella syndrome, immunization against H. influenza and S. pneumoniae to reduce cases of meningitis, and avoiding or protecting against excessive noise exposure. The World Health Organization also recommends immunization against measles, mumps, and meningitis,

efforts to prevent premature birth, and avoidance of certain medication as prevention. World Hearing Day is a yearly event to promote actions to prevent hearing damage. Noise exposure is the most significant risk factor for noise-induced hearing loss that can be prevented. Different programs exist for specific populations such as school-age children, adolescents and workers. Education regarding noise exposure increases the use of hearing protectors. The use of antioxidants is being studied for the prevention of noise-induced hearing loss, particularly for scenarios in which noise exposure cannot be reduced, such as during military operations. Management depends on the specific cause if known as well as the extent, type and configuration of the hearing loss. Sudden hearing loss due to and underlying nerve problem may be treated with corticosteroids.

Most hearing loss, that resulting from age and noise, is progressive and irreversible, and there are currently no approved or recommended treatments. A few specific kinds of hearing loss are amenable to surgical treatment. In other cases, treatment is addressed to underlying pathologies, but any hearing loss incurred may be permanent. Some management options include hearing aids, cochlear implants, assistive technology, and closed captioning. This choice depends on the level of hearing loss, type of hearing loss, and personal preference. Hearing aid applications are one of the options for hearing loss management. For people with bilateral hearing loss, it is not clear if bilateral hearing aids (hearing aids in both ears) are better than a unilateral hearing aid (hearing aid in one ear) (4-5).

REFERENCES:

1. Araújo E, Zucki F, Corteletti LC, Lopes AC, Feniman MR, Alvarenga K (2012). "Hearing loss and acquired immune deficiency syndrome: systematic review". Jornal da Sociedade Brasileira de Fonoaudiologia. 24 (2): 188–92. doi:10.1590/s2179-64912012000200017. PMID 22832689.
2. Curhan SG, Shargorodsky J, Eavey R, Curhan GC (September 2012). "Analgesic use and the risk of hearing loss in women". American Journal

of Epidemiology. 176 (6): 544–54. doi:10.1093/aje/kws146. PMC 3530351. PMID 22933387.

3. Cone B, Dorn P, Konrad-Martin D, Lister J, Ortiz C, Schairer K. "Ototoxic Medications (Medication Effects)". American Speech-Language-Hearing Association.
4. Rybak LP, Mukherjea D, Jajoo S, Ramkumar V (November 2009). "Cisplatin ototoxicity and protection: clinical and experimental studies". The Tohoku Journal of Experimental Medicine. 219 (3): 177–86. doi:10.1620/tjem.219.177. PMC 2927105. PMID 19851045.
5. Rybak LP, Ramkumar V (October 2007). "Ototoxicity". Kidney International. 72 (8): 931–5. doi:10.1038/sj.ki.5002434. PMID 17653135.