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**PREVALENCE OF HEARING LOSS
AMONG MEDICAL STUDENTS**

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ABSTRACT:

Hearing loss is a partial or total inability to hear. Hearing loss may be present at birth or acquired at any time afterwards. Hearing loss may occur in one or both ears. This cross-sectional study was conducted among medical students of different medical colleges. Name, age, gender, presence or absence of hearing loss and use of any hearing aid were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. There were 70 medical students in this study. There were 35 males (50%) and 35 females (50%). The mean age of the students was 20.23 ± 1.23 years. Out of 70 medical students, only 6 had different problems regarding hearing loss and they were using hearing aid for this purpose. None of the students was completely deaf.

KEYWORD: HEARING LOSS

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INTRODUCTION:

Hearing loss is a partial or total inability to hear. Hearing loss may be present at birth or acquired at any time afterwards. Hearing loss may occur in one or both ears. In children, hearing problems can affect the ability to learn spoken language, and in adults it can create difficulties with social interaction and at work. Hearing loss can be temporary or permanent. Hearing loss related to age usually affects both ears and is due to cochlear hair cell loss. In some people, particularly older people, hearing loss can result in loneliness. Deaf people usually have little to no hearing.

Hearing loss may be caused by a number of factors, including: genetics, ageing, exposure to noise, some infections, birth complications, trauma to the ear, and certain medications or toxins. A common condition that results in hearing loss is chronic ear infections. Certain infections during pregnancy, such as cytomegalovirus, syphilis and rubella, may also cause hearing

loss in the child. Hearing loss is diagnosed when hearing testing finds that a person is unable to hear 25 decibels in at least one ear. Testing for poor hearing is recommended for all newborns. Hearing loss can be categorized as mild (25 to 40 dB), moderate (41 to 55 dB), moderate-severe (56 to 70 dB), severe (71 to 90 dB), or profound (greater than 90 dB). There are three main types of hearing loss: conductive hearing loss, sensorineural hearing loss, and mixed hearing loss.

About half of hearing loss globally is preventable through public health measures. Such practices include immunization, proper care around pregnancy, avoiding loud noise, and avoiding certain medications. The World Health Organization recommends that young people limit exposure to loud sounds and the use of personal audio players to an hour a day in an effort to limit exposure to noise. Early identification and support are particularly important in children. For many, hearing aids, sign language, cochlear implants and



subtitles are useful. Lip reading is another useful skill some develop. Access to hearing aids, however, is limited in many areas of the world. As of 2013 hearing loss affects about 1.1 billion people to some degree. It causes disability in about 466 million people (5% of the global population), and moderate to severe disability in 124 million people. Of those with moderate to severe disability 108 million live in low and middle income countries. Of those with hearing loss, it began during childhood for 65 million. Those who use sign language and are members of Deaf culture see themselves as having a difference rather than a disability. Most members of Deaf culture oppose attempts to cure deafness and some within this community view cochlear implants with concern as they have the potential to eliminate their culture. The terms hearing impairment or hearing loss are often viewed negatively as emphasizing what people cannot do, although the terms are still regularly used when referring to deafness in medical contexts (1-3). The objective of this

study was to see the prevalence of hearing loss among medical students

MATERIAL AND METHODS:

This cross-sectional study was conducted among medical students of different medical colleges. Name, age, gender, presence or absence of hearing loss and use of any hearing aid were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:

There were 70 medical students in this study. There were 35 males (50%) and 35 females (50%). The mean age of the students was 20.23 ± 1.23 years. Out of 70 medical students, only 6 had different problems regarding hearing loss and they were using hearing aid for this purpose. None of the students was completely deaf.



DISCUSSION:

Hearing loss has multiple causes, including ageing, genetics, perinatal problems and acquired causes like noise and disease. For some kinds of hearing loss the cause may be classified as of unknown cause.

There is a progressive loss of ability to hear high frequencies with aging known as presbycusis. For men, this can start as early as 25 and women at 30.

Noise-induced hearing loss (NIHL), also known as acoustic trauma, typically manifests as elevated hearing thresholds (i.e. less sensitivity or muting). Noise exposure is the cause of approximately half of all cases of hearing loss, causing some degree of problems in 5% of the population globally. The majority of hearing loss is not due to age, but due to noise exposure. Various governmental, industry and standards organizations set noise standards. Many people are unaware of the presence of environmental sound at damaging

levels, or of the level at which sound becomes harmful. Common sources of damaging noise levels include car stereos, children's toys, motor vehicles, crowds, lawn and maintenance equipment, power tools, gun use, musical instruments, and even hair dryers. Noise damage is cumulative; all sources of damage must be considered to assess risk. In the US, 12.5% of children aged 6–19 years have permanent hearing damage from excessive noise exposure. The World Health Organization estimates that half of those between 12 and 35 are at risk from using personal audio devices that are too loud. Hearing loss in adolescents may be caused by loud noise from toys, music by headphones, and concerts or events.

Hearing loss can be inherited. Around 75–80% of all these cases are inherited by recessive genes, 20–25% are inherited by dominant genes, 1–2% are inherited by X-linked patterns, and fewer than 1% are inherited by mitochondrial inheritance. Syndromic deafness



occurs when there are other signs or medical problems aside from deafness in an individual, such as Usher syndrome, Stickler syndrome, Waardenburg syndrome, Alport's syndrome, and neurofibromatosis type 2. Nonsyndromic deafness occurs when there are no other signs or medical problems associated with the deafness in an individual (4-6).

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