

“ABSENCE OF 22.97 KDA & 26.10KDA PROTEINS IN NOISE EXPOSED WORKERS”**M.Trivedi, S. Pingle, R. Tumane, P. Soni**

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Noise is defined as "unwanted sound". Exposure to excessive noise can cause Noise induced hearing loss (NIHL). NIHL is a type of high frequency sensorineural hearing loss, often with a classic notch at 4 KHz it can lead to mechanical disruption of the cochlea resulting in damage of proteins of stereocilia, inner & outer hair cells causing permanent hearing loss. Worldwide 16% of the disabling hearing loss in adults results from excessive exposure to noise in the workplace. Exposure to occupational noise is an unavoidable problem, as the progress of industrialization spreads, noise exposure will substantially increase and add to global burden of disability. The degree of hearing impairment reflects an individual's total accumulation of noise exposure, which was measured by using noise dosimeter, the results indicated the intensity of sound exceeds 90dB (A) - danger limit value for the noise exposed workers. Proteomics is powerful tool for protein analysis as it provides valuable information regarding the biochemical processes involved in cellular processes, characterizes protein expression levels. To understand proteins associated with the pathophysiology of NIHL, evaluation of biomolecules was carried out using blood serum. Absence of 22.97kDa and 26.10kDa protein in experimental subjects was found, which would help in developing biomarker(s) for early detection of NIHL and help in creating diagnostic tool for NIHL.