



DRUG INDUCED HEARING LOSS: A CASE STUDY

*Srabanti Khemka¹, *Pamela Samaddar Sardar², Mita Sarkar³*

Ex-Lecturer, Speech and Hearing, AYJNIHH, ERC¹

Audiologist & Speech Language Pathologist, AYJNIHH, ERC²

Lecturer, Speech and Hearing, AYJNIHH, ERC³

**Corresponding author: Pamela Samaddar Sardar*

ABSTRACT

Introduction: Hearing impairment occasionally accompanies medications such as aspirin, non-steroidal anti-inflammatory drugs, and cis-platin (Seligmann et al. 1996). Use of these medications, alone or in combination with exposure to hazardous noise, can result in high-frequency sensorineural hearing loss. The reactions of these drugs may affect all structures of the hearing organ, and result in sensorineural or mixed hearing loss.

Aim of the study: This study investigates the configuration, type and degree of hearing loss of a 12 year old boy who had taken drugs which were prescribed to him after he met with an accident 3 years ago. The drugs which were prescribed to him were Coenflex, Niacin(Amikacin) Injection and SN10. In addition, audiologic management is discussed with reference to audiologic assessment, counseling, and use of amplification.

Method: Audiological assessment included clinical examination and otoscopy. Pure tone audiometry was undertaken using Audiometer MAICO MA 53, including bone conduction testing, impedance testing using GSI 38 Impedance Audiometer. Speech and Language Assessment was done for the case using various Speech Assessment Tools. Linguistic Profile Test and Articulation Test in Bengali was administered.

Results: The patient revealed a profound sensorineural hearing loss in Right ear and a severe high frequency sensorineural hearing loss in Left ear with impaired speech discrimination ability bilaterally as well as misarticulated speech. The child was diagnosed as Age Appropriate Language with misarticulation.

Discussion: In this study a subject who had been taking certain drugs namely SN10, Niacin and Coenflex developed hearing loss with misarticulated speech. These had been prescribed to the patient as antitoxins after the boy had met with an accident. Audiological tests revealed a profound sensorineural hearing loss in Right ear and a severe high frequency sensorineural hearing loss in Left ear with impaired speech discrimination ability bilaterally. When a hearing loss has been documented, aural rehabilitation should be initiated. Counseling the patient and his family regarding the hearing loss provides an opportunity to explain the use of amplification as a rehabilitative approach.

Conclusion: The prevention and rehabilitation is an essential measure of such cases. In selected cases with bilateral profound hearing loss or total deafness, cochlear implants may prove effective. Further improvements in otologic diagnostics and therapy may allow better prevention and management of drug induced-related hearing changes.