



PROFILE OF OTORHINOLARYNGOLOGICAL MORBIDITY IMPACTING HEARING FUNCTION IN SCHOOL CHILDREN AT TERTIARY CARE CENTRE

Deepti Pandey

Consultant, Otorhinolaryngology, SRLNM Charitable Trust Hospital, Varanasi-221005, UP

Abstract: Prevention of hearing loss is crucial in school children to guard them against failure of academic and social development. The common threats that may be preventable and modifiable need be known therefore. 134 school age patients visiting ENT outdoor with some ear complaint and profiled to generate local evidence base. Hearing impairment was there in 27.6% of school age patients with ear complaints. Ear wax impaction was most common external ear disease but middle ear diseases were most causal to hearing loss which was essentially of conductive type. Ample scope of timely detection and intervention for prevention of hearing loss existing in school age children .Expansion of care facilities and appropriate health education for seeking care.

Keywords: Hearing loss; Otologic disorder; Hearing loss

Introduction: School age children constitute major and critical contingent of otorhinolaryngological care. To large extent childhood hearing impairment arising from poor socioeconomic conditions and poor care are secondary to preventable or modifiable causes. Hearing impairment even of minor degree in this age compromises proper classroom learning, scholastic performance and global

development of victim. The present study was an attempt to understand the pattern of otorhinolaryngological maladies in school children and the relevant percepts of prevention of hearing loss, as regional evidence base.

Patients and method: It was prospective collection of data from otorhinolaryngology outdoor cases of 5 year to 15 year at the Shishumangal Hospital, a tertiary care mission hospital in Kolkata metro, through the period October 2012 to September 2013. The study is entirely observational and consent from patient's attendants was obtained to use their hospital data, assuring to not reveal identity. The work was allowed by superior administration.

For Correspondence:

drdpbent@gmail.com

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Data of 134 school age patients was collected. Besides general and systemic checkup, detailed ENT examination was carried out. Initial hearing assessment was done by Rinne's, Weber and absolute bone conduction tests. Those found with hearing deficit in these measures were subjected to audiometric examination. Unresponsiveness to auditory stimuli at 25dB in either ear at 1000, 2000 or 4000Hz frequencies.

Observations and result

Among 134 children, 72 were males and 52 were females.

Table: 1 Age wise distribution was as under:

Age (yrs)	Total	Male	Female
5-7	19	13	6
8-10	39	25	14
11-12	32	21	11
13-15	44	26	18

55 cases had complaint of ear irritation and /or discharge, which was attributed to impacted wax. 29 cases had Eustachian tube block without middle ear effusion. 24 cases came as acute otitis media, 11 cases as otitis media with effusion and 15 cases were of chronic suppurative otitis media.

Table: 2. Hearing impairment and associated ear disease:

Ear disease	Total cases	Hearing impaired	%	% of all cases
Ear wax	55	2	3.6	1.5
Eustachian tube block	29	2	6.9	1.5
Acute otitis media	24	12	50	8.95
Otitis Media effusion	11	6	54.5	4.5
CSOM	15	15	100	11.2

Table: 3. Nasal pathology profile among the 134 cases were as under

Nasal pathology	Total cases	% of all cases
Deviated nasal septum	23	17.2
Nasal spur	2	1.5
Acute rhinitis	7	5.2
Allergic rhinitis	2	1.5
Acute sinusitis	1	0.75

Table: 4. Throat pathology profile among the 134 cases were as under

Throat pathology	Total cases	% of cases
Chronic adenotonsillitis	1	0.75
Tonsillar hyperplasia	3	2.2
Acute pharyngitis	7	5.2

Discussion: Prevalence of impacted wax was the commonest external ear problem in the school age children. Among patients bearing ontological complaints hearing impairment was detected in 37(27.6%). In none of the studied cases sensor neural hearing loss could be found and all cases had conductive hearing loss. Middle ear disease constituted 50 cases among 134 but was responsible for hearing loss in 33 of 37 cases bearing hearing loss in the studied sample. Studies show significant inverse relation between better socioeconomic factors and prevalence of chronic middle ear diseases (1-3). Despite this disorders causing hearing impairment found in the study are preventable, curable and modifiable. Very sound role is manifest for inculcation of better hygiene and health education toward timely health care seeking (5). 35 of the 134 studied cases had nose disease, in which nasal septum deviation was most prominent. Throat diseases were just in 5 of 134 cases. These extra-auditory morbidities suggest role in producing hearing complaints and consequent hearing loss. Such variety of co morbidity is reflection of poor socioeconomic perspectives. Improved availability of services and health awareness and seeking culture appear very crucial areas for

buildup toward safeguarding school children against the handicap of hearing loss.

Conflict of interest statement

There is no conflict of interest.

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