

Pattern of aural morbidity among children in a rural tertiary care hospital

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ABSTRACT : Objective: To study the pattern of aural morbidity among the paediatric population attending the ENT OPD of our hospital.

Methods:

DESIGN: Observational study with a cross-sectional design

SETTING: Tertiary government rural teaching hospital

PARTICIPANTS: All patients upto 15 years of age attending the ENT OPD during the study period

RESULTS: In our study, out of 3095 patients, 2062 were under the age of 15 years. Maximum patients (36.47%) were within 0-5 years of age. Out of them, 1036 patients (50.24%) were male and rest 1026 patients (49.76%) were female with a male female ratio of 1.01:1. Majority of patients were Hindu (53.98%), rest 44.72% patients were Muslim and 1.3% were Christian. Chronic suppurative otitis media (37.54%) was the most common ear pathology detected. 84.37% patients had tubo-tympanic type and rest (15.63%) were having attico-antral type of disease. Other diseases were impacted wax (19.64%), external otitis (15.13%), ASOM (9.84%), otomycosis (8.1%), F.B. inside the ear (5.24%), OME (3.93%), preauricular sinus (0.53%) and anotia with congenital aural atresia (0.05%).

CONCLUSION: Ear diseases are one of the major health problems among children. Chronic suppurative otitis media followed by wax impaction and acute otitis media is the most common ear diseases in children attending the ENT OPD. Increasing awareness about ear diseases should be one of the goals of all health care providers. Improvement of health care facilities and awareness amongst health care providers would definitely be helpful in reducing the prevalence of ear diseases in developing countries like us

KEYWORDS : Aural morbidity; Children; CSOM; Wax; ASOM; External otitis; OME; Otomycosis

I. INTRODUCTION

Ear is one of the most important special sensory organs and ear diseases are very common in our ENT practice. There is a fairly large amount of paediatric population attending ENT OPD of our hospital and out of them majority of patients were suffering from ear problems. There is a wide variation of presentation of ear diseases in paediatric population and it also varies from .

II. MATERIALS AND METHODS

This study was carried out in the Dept. of ENT , Burdwan Medical College & Hospital, Burdwan. It comprises of 3195 patients aged below 15 years with 2062 patients having complaint related to their ear attended both OPD and emergencies of ENT Department of Burdwan Medical College & Hospital, successfully treated during the period of December, 2012 to May, 2013. All the patients were evaluated carefully with thorough history taking and a complete ENT examination in ENT OPD after taking consent from the guardian of patients. Otoscopic examination done properly using otoscope.

III. RESULTS

In our study, 2062 patients were under the age of 15 years, presented with problem related with their ear out of 3095 patients in that age group, giving a prevalence of 66.62% of paediatric patients with otologic diseases. All the patients were divided into three broad groups, that is, 0-5 years, 6-10 years & 11-15 years. Maximum patients (36.47%) were within 0-5 years of age. Out of them, 1036 patients (50.24%) were male and rest 1026 patients (49.76%) were female (Table – 1) with a male female ratio of 1.01:1. Majority of patients were Hindu (53.98%), rest 44.72% patients were Muslim and 1.3% were Christian (Table – 4).Chronic suppurative otitis media (37.54%) was the most common ear pathology detected among the patients and it is more common in 11-15 years age group (Table – 2 & 5). Out of 774 patients suffering from CSOM, 653 patients (84.37%) were suffering from tubo-tympanic type and rest (15.63%) were having attico-antral type of disease (Table – 3). Other diseases were impacted wax (19.64%), external otitis (15.13%), ASOM (9.84%), otomycosis (8.1%), F.B. inside the ear (5.24%), OME (3.93%), preauricular sinus (0.53%) and anotia with congenital aural atresia (0.05%).

IV. DISCUSSION

Ear disease in children is a major public health problem in developing countries which can result in social and psychological problems for affected children and their families. The common leading causes of aural morbidities are chronic suppurative otitis media (CSOM) is a major health problem in developing countries throughout the world. It is the most common cause of persistent mild to moderate hearing impairment in children and young adults [1].

Ear is an important organ in the body that is very useful in day-to-day communication with the outside world, smooth performance of activities and social development. When this organ is diseased, it can result in impairment of function in hearing and balance.

CSOM is the most common morbid condition of the ear and a leading cause of hearing loss. Hearing loss is a significant health problem in developing countries [2,3]. In our study also, hearing loss due to chronic suppurative otitis media (37.54%) was found to be the most common ear pathology detected. Akinpelu et al study showed that a very high prevalence (33.9%) of CSOM in Nigerian children [4]. The reasons for this may include absence of regular screening programs for ear diseases, poverty, malnutrition, ignorance and paucity of accessible healthcare [5,6].

Wax impaction is the second most common morbidity in our study. Hatcher et al [7], Elango et al [8] and Minza et al [9] reported prevalence rates of impacted wax ranging from 8.6% to 28.2%. This is followed by otitis externa and ASOM. In the study done by Akinpelu and Amusa et al, however the frequency of ASOM was lower (7.0%) [4]

The general observation of the patients' occupational classes showed that there were more patients in lower occupational classes than those in the upper classes. Generally, it is believed that people in upper socio-economic classes are more literate, have healthier lifestyles and behavior than people in lower classes [10]. Patients of lower socioeconomic status are likely to have nutritional problems and live in overcrowding environments which are important risk factors for the ear diseases. The patients in these classes are likely to delay seeking medical advice due to lack of knowledge about the disease and fund. They are likely to present with associated complications of the disease with increased morbidity.

The results from this study are only applicable to the paediatric population attending the ENT OPD of our hospital. An exact comparison with different socio economic and demographic factors could not be elicited as a control group was not taken into consideration. The prevalence of the various morbidities could be much higher in the general population, as many do not come to get medical help due to various socioeconomic barriers. Thus the results of this study cannot be generalized and applied to the community. A broader community based multicentred and large sample sized study is further needed to find out the actual prevalence and pattern of ear diseases in this country.

V. TABLES

Table - 1
Age distribution

Age	Male (%)	Female(%)	Total
0-5 yrs	397(19.25%)	355(17.22%)	752(36.47%)
6-10 yrs	288(13.97%)	297(14.41%)	585(28.37%)
11-15 yrs	351(17.02%)	374(18.14%)	725(35.16%)
Total	1036(50.24%)	1026(49.77%)	2062

Table - 2
Distribution of patients by various diseases

Disease	No. of patients	Percentage (%)
CSOM	774	37.54
Impacted wax	405	19.64
External otitis	312	15.13
ASOM	203	9.84
Otomycosis	167	8.1
Foreign body ear	108	5.24
OME	81	3.93
Preauricular sinus	11	0.53
Anotia with congenital aural atresia	01	0.05

Table - 3
Distribution of types of CSOM

Types of CSOM	No. of patients	Percentage (%)
Tubotympanic	653	84.37
Atticoantral	121	15.63

Table - 4
Distribution of patients by religion

Religion	No. of patients	Percentage (%)
Hindu	1113	53.98
Muslim	922	44.72
Christian	27	1.30

Table - 5
Age wise distribution of common paediatric ear pathologies

Disease	0-5yrs	6-10yrs	11-15yrs	Chi Square- 57.425 df - 6 p value< 0.05
CSOM	207	340	227	
Impacted wax	173	123	109	
External Otitis	85	134	93	
ASOM	96	64	46	

VI. CONCLUSION

Ear diseases are one of the major health problems among children. Chronic suppurative otitis media followed by wax impaction and acute otitis media is the most common ear diseases in children attending the ENT OPD. Increasing awareness about ear diseases should be one of the goals of all health care providers. Improvement of health care facilities and awareness amongst health care providers would definitely be helpful in reducing the prevalence of ear diseases in developing countries like us.

VII. REFERENCES

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VIII. ABBREVIATIONS

ASOM – Acute suppurative otitis media
CSOM - Chronic suppurative otitis media
OME - Otitis media with effusion
F.B. – Foreign body
ENT –Ear nose & throat
OPD – Out patient department