

Original Research Article

Prevalence of ear, nose and throat disorders in children at government district hospital Vizianagaram

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ABSTRACT

Background: Ear, nose and throat (ENT) problems are very common among the children, there is a lack of data on paediatric otorhinolaryngology from various Indian populations. This study was conducted to determine the hospital based prevalence of ENT disorders in paediatric population.

Methods: A record based, retrospective study conducted at government district Hospital, Vizianagaram, Andhra Pradesh, India. 1818 children between the ages of 0-15, attending the ENT department in our hospital were included in the study. General demographic details taken, and examination for common ENT complaints and disorders was taken for all patients. Otoscopy for ear examination for ear perforation and ear discharges. Anterior rhinoscopy for nasal discharge and airway obstruction. Throat examination was performed for any sign of tonsillitis or pharyngitis and adenoids.

Results: ENT diseases in our study population were found to be more common among male children (57.97%). Majority of the paediatric patients belonged to age group 5-14 years (65.7%), were from lower socioeconomic status (57.53%), living in nuclear family (62.81%) and had illiterate mothers (68.5%). Diseases of ear system (44%) were the most common group of ENT problems among the paediatric population, followed by nasal (30.9%) and throat (25.1%) disorders. The most common ENT disorders were otitis media (22.1%), tonsillitis (11.66%).

Conclusions: Our study provides basic information of the prevalent disorders in ENT in our area suggests that otitis media, tonsillitis and rhinitis are the most common otorhinolaryngological problems in paediatric population visiting the ENT Department of this hospital and contribute significantly to paediatric morbidity.

Keywords: Otitis media, Rhinitis, Tonsillitis

INTRODUCTION

Pediatric ear, nose, throat (ENT) problems are one of the most common causes to consult the doctor. Paediatric population constitutes 35% of the total Indian population.¹

ENT problems are more common in children than in adults, especially diseases such as acute suppurative otitis media, acute tonsillitis and rhinitis etc. This could be due to various factors such as wider and horizontal

Eustachian tube, under developed immunity, malnourishment, poor hygiene and sanitary conditions, overcrowding, lower socioeconomic status etc.²

Mortality is very low in paediatric ENT cases except in cases of ENT emergencies, but morbidity does occur in spite of improved health care.^{3,4}

This study was mainly conducted to give us an idea of the prevalence disorders of the ear nose and throat in our community and area.

METHODS

This study was conducted in the Department of ENT over a period of 2 years at district hospital, Vizianagaram, from February 2015 to January 2017. Children between the ages of 0 to 15 years attending the ENT department in our hospital were included in the study. Some of these children were referred from the paediatric and medical department. General demographic details such as age, sex, socio-economic status, clinical history and examination documented for all patients.

Otoscopy for ear examination for diseases such as otitis media, ear perforation and ear discharge were done. Anterior rhinoscopy for nasal discharge, airway obstruction.

Throat examination was performed for any sign of tonsillitis, pharyngitis and adenoid hypertrophy. Appropriate investigations such as X-rays, culture and sensitivity, etc. were performed where necessary.

Patients with expectorant, pneumonia, tuberculosis, hemoptysis and other diseases were excluded from the study. Children presenting with headache due to any

ophthalmic reasons or neurological reasons were excluded from the study. For statistical analysis we are using SPSS software.

RESULTS

Pediatric ENT diseases in our study population were found to be more common among male children (57.97%). Majority of the paediatric patients belonged to age group 5 to 14 years (65.7%), were from lower socioeconomic status (57.53%), living in nuclear family (62.81%) and had illiterate mothers (68.5%). Diseases of ear system (44%) were the most common group of ENT problems among the paediatric population, followed by nasal (30.9%) and throat (25.1%) disorders. The most common ear, nose and throat disorders were otitis media (22.1%), Tonsillitis (11.66%).

Ear disorders

Suppurative otitis media was the most common presenting complaint (22.1%) followed by ear wax and otitis media with effusion. Foreign body (FB) in the ear was seen in 42 children. Other disorders of the otological group included trauma.

Table 1: Demographic characteristics (n=1818).

	Number	%
Gender		
Male (total)	1054	57.97
0 to 1 year	124	6.8
1 to 5 years	248	13.6
5 to 14 years	682	37.5
Female (total)	764	42.03
0 to 1 year	68	3.7
1 to 5 years	184	10.1
5 to 14 years	512	28.2
Socioeconomic status		
Upper class	24	1.32
Upper middle	52	2.86
Middle	212	11.66
Lower upper	484	26.62
Lower lower	1046	57.53
Family type		
Nuclear	1142	62.81
Joint	676	37.19
Educational status of mother		
Illiterate	1246	68.5
Primary	326	17.93
Secondary	138	7.6
Graduate/or above	108	5.94
Religion		
Hindu	1442	79.3
Christian	242	13.31
Muslim	122	6.7
Others	12	0.66

Nose disorders

Among problems associated with nose, rhinitis (10.56%) was most common complaint. Most of the cases of rhinitis were infective in nature coexisting with other components of upper respiratory tract infection. FB and epistaxis showed the prevalence with 28 and 42 children being diagnosed respectively. Other conditions of nose

like nasal polyp sinusitis, trauma and deviated nasal septum was seen only in minor group (n=70) of the paediatric patients.

Throat disorders

Tonsillitis was troubling 11.66% of our study population followed by pharyngitis (7.8%), cervical lymphadenitis (2.64%), adenoid hypertrophy (1.65%), FB (1.32%).

Table 2: Incidence of various ENT diseases.

	Disorder	Number	Percentage (overall %)
Ear disorders (n=800)	Suppurative otitis media	402	22.1
	Otitis media with effusion	118	6.5
	Injures	30	1.65
	Foreign body ear	42	2.31
	Ear wax	208	11.44
Nose disorders (n=562)	Rhinitis	192	10.56
	Allergic rhinitis	112	6.16
	Chronic sinusitis	118	6.5
	Epistaxis	42	2.31
	Foreign body nose	28	1.54
	Nasal Polyp	18	1
	Deviation of nasal septum	32	1.76
	Injuries	20	1.1
Throat disorders (n=456)	Tonsillitis	212	11.66
	Pharyngitis	142	7.8
	Cervical lymphadenitis	48	2.64
	Adenoid hypertrophy	30	1.65
	Foreign body	24	1.32

DISCUSSION

The main health problems encountered in the child population in India are low birth weight, malnutrition, infection and parasitosis, accidents and poisoning and behavioural problems.⁵

ENT disorders could be either a consequence of the above or may complicate them adding to problems with growth and development. The focus of the various health plans directed to attend the needs of paediatric population has ignored the significant morbidities that arise in the ear, nose and throat.

Suppurative otitis media is the most common morbid condition of the ear and a leading cause of hearing loss. The high prevalence of otitis media in our study corresponds to the results obtained elsewhere in similar study populations.

Adhikari in a study conducted among 2000 children aged between 5 and 13 years in Nepal found wax followed by chronic suppurative otitis media and otitis media with effusion as the most common ear diseases in rural school children.⁶

Hatcher et al also found chronic suppurative otitis media, wax and hearing loss among major form of ear diseases.⁷

Jacob in a study from rural school of south India diagnosed otitis media in 17.6% of children. Socio economic status and provision of health care facilities act as risk factors.⁸

Rhinitis may be viral or allergic in nature. Infective rhinitis often co-exist with other constituents of upper respiratory tract infection. Allergic rhinitis may be seen associated with asthma and other allergic conditions.⁹

The high prevalence of rhinitis in our study is the result of upper respiratory tract infection with poor patient compliance. Adenoiditis, another common complaint is often seen co existent with tonsillitis. Upper respiratory obstruction and adenoid hypertrophy are the most common aetiologies that cause mouth breathing and snoring.¹⁰

Epistaxis in children is a common disorder that is usually due to local irritation in Kiesselbach's plexus. The most common disorders underlying epistaxis are local inflammatory diseases, infections, and trauma.¹¹

Most often the bleed is self limiting in children, however they may be recurrent. The data showing the recent prevalence of nose bleed in children is scanty.

Tonsillitis is one of the most common ENT disorders which bring a child for seeking relief to a general practitioner. 11.66% of our study population revealed tonsillitis as the major concern. This conforms to the reports of studies which has shown recurrent tonsillitis in 11.7% of Norwegian children in one study and estimated in another study to affect 12.1% of Turkish children.¹²

The results from this study are only applicable to the paediatric population attending the ENT clinic of our district hospital. Thus, the results of this study cannot be generalized and applied to the community. A broader community-based survey could bring the true picture of the magnitude of the morbidity pattern.

CONCLUSION

The study suggests that otitis media, tonsillitis and rhinitis are the most common ENT problems in paediatric population. Since, it is mostly the general practitioners who manage these cases; it is important that they are well verse with their diagnosis and treatment. Although these conditions are not yet a concern for public health authorities they contribute significantly to paediatric morbidity.

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