



Original Article

Incidence of Otolaryngological Diseases in General Population: A Study in Eastern Medical College Hospital

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Abstract

Background: Otolaryngological diseases are serious public health problems affecting all age groups. This includes problem of hearing, speech, phonation, breathing, swallowing, smell & taste and protection of lower respiratory passage. **Objective:** The aim of this study was to determine the common clinical presentation and socio demographic characteristics of the patients attending in ENT outdoor. **Method:** This cross-sectional study was conducted among 500 patients attending in ENT outdoor in Eastern medical college Hospital, Cumilla, Bangladesh using a self-administered semi-structured questionnaire from July 2020 to September 2020. **Result:** In this study 44.8% were male and 55.2% female. All age group were included and majority of patients were age group of 21-30 years (28.6%). In our study 38.2% (191) of the study populations were suffering from ear diseases, and then followed by 32% (160) nose diseases and 29.8% (149) throat diseases. Common ear, nose, throat diseases were suppurative otitis media 30.37% (58), allergic rhinitis 23.13% (37), tonsillitis 31.54% (47), respectively. **Conclusion:** Our study provides basic information of the incidence of ENT disorders in the study area suggests that suppurative otitis media, tinnitus, foreign body ear, allergic rhinitis, nasal polyp, sinusitis, tonsillitis and pharyngitis are the most common Otolaryngological (ENT) problems in general population visiting the ENT Department of this hospital and contribute significantly to morbidity.

Key words: Otolaryngology, Otitis media, Sinusitis, Tonsillitis

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Introduction

Otorhinolaryngological or Otolaryngological (ear, nose and throat) diseases are varied in nature. They can be congenital or acquired, infective, allergic or inflammatory, benign or malignant. Diseases of the ear, nose and throat (ENT) vary with the environment in which individuals live in, usually in line with the form of air pollution, chemicals or adverse weather conditions they are exposed to. At the same time, one's susceptibility to infections or diseases depends not just on the environment, but on individual genetic predisposition to certain diseases, and the presence or absence of co-morbidities¹.

Wide varieties of otolaryngological diseases present to the otolaryngologist and head-neck surgeons. The pattern of these diseases may vary from community to community or hospital to hospital based on the availability of specialist personnel or facilities for the management of such diseases which are either congenital or acquired in origin. The acquired diseases include infections, inflammatory diseases, neurologic diseases, vascular diseases, trauma, benign and malignant tumors etc. Ear, nose and

throat diseases are serious public health problems with universal distribution affecting all age groups². Common otolaryngological diseases include otitis media (acute and chronic), tonsillitis, acute laryngotracheobronchitis, adenoiditis, foreign body in ear-nose and wax with or without fungal infection of ear etc.^{3,4}. Ear, nose, throat, head and neck diseases are very important because of the type of morbidities which they cause due to impairment of the inherent physiologic functions that usually take place in the head and neck region. These include problems of hearing, breathing, swallowing, phonation, speech, olfaction, taste, protection of the lower respiratory tract and clearance of secretions.

Aesthetic problems of the face and psychological problems may occur in neoplasm and neurological diseases of the head and neck region. In some situations, these morbidities may lead to social embarrassment, occupational, school and economic losses in the community. Knowledge of these ear, nose and throat diseases can help the administrator and policy makers in the community to make adequate strategic health planning, especially in

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developing countries where poverty, ignorance, insufficient personnel, and lack of basic health facilities are more^{5,6}. The most common problems warranting a visit to a doctor or a health care provider in developing countries are related to ear nose and throat (ENT). Diseases of ENT commonly affect the general population^{7,8}. Socioeconomic status also appears to play a part in some of these ENT Diseases. Chronic otitis media has been found to be predominant in the lower socioeconomic class group. It's known that poverty is a major risk factor of CSOM in the developing countries⁹.

Otolaryngological emergencies are common in all countries. The rate of otolaryngological emergencies has increased particularly in the winter among patients in emergency service. The majority of otolaryngological emergencies are simple disorders which can be treated by primary healthcare providers. Understanding the epidemiological profile of these disorders can help not only physicians but also patients, policymakers, researchers, and healthcare providers to improve the operation capability and increase the quality of care in emergency service¹⁰. The current study was done to determine the prevalence of otolaryngological disorders in general population and their relationship with sociodemographic factors in a rural tertiary care hospital in Cumilla, Bangladesh.

Materials & Methods

This cross-sectional study was conducted among 500 out-patients of any age in Eastern medical college hospital, Kabila, Cumilla presenting with ear, nose and throat diseases. During the study period from October'20 to December'20, the study population was evaluated by history and complete ENT examination and required data was collected. Statistical analysis was done using frequency and percentage using Microsoft Excel and SPSS.

Results

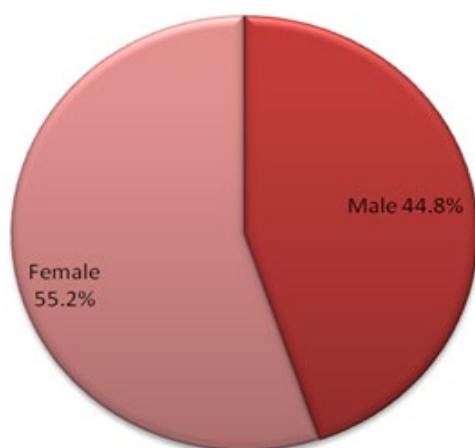


Figure-1: Gender Distribution of the respondents

Socio-demographic characters of study participant like age, gender, religion, educational qualifications, monthly income, occupational status, family types, type of residence and type of latrine is expressed in Table-I, Figure-1 and Figure-2. Distribution of respondents according to their disease related to ear (n=191), nose (n=160) and throat (n=149) are tabulated with number and percentages of the study participants in table-II, table-III and table-IV respectively and in figure-3.

Table-I: Distribution of respondents according to their socio-demographic characters

Socio-demographic Characters	n (%)
Age (Years)	
< 10	73 (14.6)
11-20	53 (10.6)
21- 30	143 (28.6)
31-40	88 (17.6)
41-50	62 (12.4)
51-60	55 (11)
> 60	26 (5.2)
Religion	
Muslim	468 (93.6%)
Hindu	32 (6.4%)
Educational qualifications	
Illiterate	99 (19.8%)
Primary	149 (29.8%)
SSC	140 (28%)
HSC	86 (17.2%)
Above HSC	26 (5.2%)
Monthly income	
< 10,000	271 (54.2%)
10,000-20,000	73 (14.6%)
20,000-30,000	48 (9.6%)
30,000-40,000	54 (10.8%)
> 40,000	34 (6.8%)
Family types	
Nuclear	308 (61.6%)
Joint	192 (38.4%)
Type of residence	
Pacca house	170 (34%)
Semi pacca house	221 (44.2%)
Kacha house	109 (21.8%)
Type of latrine	
Water seal latrine	333 (66.6%)
Sanitary latrine but not water seal	164 (32.8%)
Others	3 (0.6%)

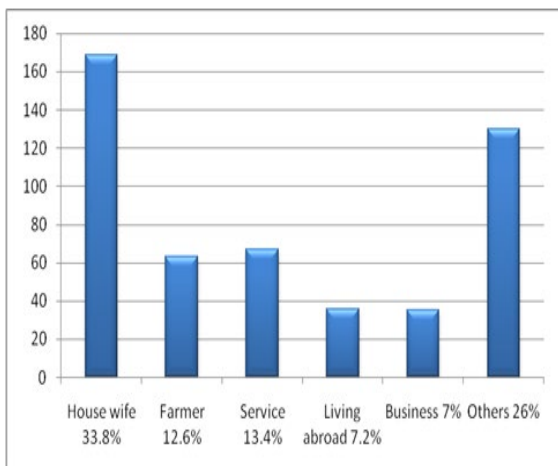


Figure-2: Distribution of respondents according to their Occupation (n=500)

Table-II: Distribution of respondents according to their disease related to ear (n=191)

Disease related to ear	n (%)
Suppurative otitis media	58 (30.37%)
Otitis media with effusion	10 (5.24%)
Tinnitus	42 (21.99%)
Impacted wax	17 (8.9%)
Furunculosis	48 (25.13%)
Foreign body ear	16 (8.38%)

Table-III: Distribution of respondents according to their disease related to nose (n=160)

Disease related to nose	n (%)
Deviated nasal septum	22 (13.75%)
Epistaxis	18 (11.25%)
Sinusitis	31 (19.38%)
Nasal polyp	36 (22.5%)
Allergic rhinitis	37 (23.13%)
Foreign body nose	16 (10%)

Table-IV: Distribution of respondents according to their disease related to throat (n=149)

Disease related to throat	n (%)
Tonsillitis	47 (31.54%)
Pharyngitis	29 (19.46%)
Adenoid hypertrophy	11 (7.38%)
Peritonsillar abscess	12 (8.05%)
Laryngitis (Hoarseness of voice)	17 (11.41%)
Cervical lymphadenitis	21 (14.09%)
Growth (Benign/ Malignant)	12 (8.05%)

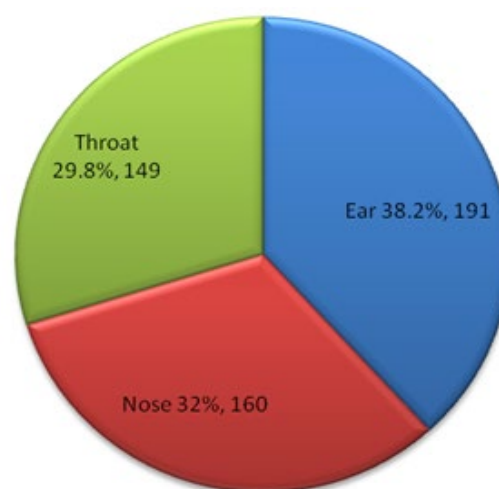


Figure-3: Distribution of respondents according to their type of ENT problems (n=500)

Discussion

Despite improvements in public health and medical care, ear disorders such as chronic otitis media remain prevalent around the world. The main health problem concerning in Bangladesh is increasing in frequency of ENT symptoms among general population. The current study demography showed that females (55.2%) were more than that of males (44.8%) and most of them were Muslim (93.6%). Here we observed that young adults of 21-30 years were more than other age groups (28.6%).

Education level of study population was concerned. About one third of them were (38%) primary passed. Concerning the occupation of respondents (33.8%) were housewife. On the other way regarding respondent’s estimated monthly family income majority of them (54.2%) earned less than 10,000 taka per month. Most of the study population lives in nuclear family (61.6%). According to the type of residence most of them lived in semi-pacca house (44.2%), followed by pacca house (34%), kacha house (21.8%). According to the type of latrine, most of respondents used water seal latrine (66.6%).

In the current study about forty percent (38.2%, 191) of the study populations were suffering from ear diseases then followed by 32% (160) nose diseases and 29.8% (149) throat diseases. Quiet similar findings were found by Fasanla et al.¹¹ at Nigeria in 2010 (ear 62.7%, nose 23.0%, head/neck 4.7%), Yeli¹² at UAE in 2013 (ear 50.24%, nasal 27.2%, oropharyngoesophageal 22.56%), Dey et al.¹³ in 2017 at BIRDEM that was ear 41.1% followed by that of throat 31.7% and nose 17.1%. Griffiths E¹⁴ at Cwmaman in 1976 ear or nose or throat complaints was 104, 41 and 206 respectively, Mahmood Dhahir Al-Mendalawi¹⁵ in Baghdad in 2007 that was pharynx and tonsils (41.7%), nose (18.6%), ear (16.3%), Raju et al.¹⁶ in Andhra Pradesh, India found that 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. Eziyi et al. in Nigeria found diseases of the ear 51.8%, nasal and paranasal sinuses diseases 26%, head and neck 7.2%¹⁷.

Among the ear diseases most of the respondents were suffering from suppurative otitis media 58 (30.37%) then followed by furunculosis 48 (25.13%), tinnitus 42 (21.99%), impacted wax 17 (8.9%), foreign body ear 16 (8.38%), otitis media with effusion 10 (5.24%).

In concern to complaints related to nose most of them were suffering from allergic rhinitis 37 (23.13%), then followed by nasal polyp 36 (22.5%), sinusitis 31 (19.38%), deviated nasal septum 22 (13.75%), epistaxis 18 (11.25%), foreign body nose 16 (10%). In a study by Zeeshan M et al. in Abbottabad found that allergic rhinitis 33 (13.2%) and Deviated Nasal Septum (DNS) 20 (8%)¹⁸. In a study by Alotaibi AD et al.¹⁹ in 2017 showed that nasal obstruction was prevalent in Northern Saudi Arabia. Another study found epistaxis in 4.98% patients by Girija Shankar Mohanta²⁰ in India in 2016.

In case of throat problems more than one third of the respondents were suffering from tonsillitis 47 (31.54%) followed by pharyngitis 29 (19.46%), cervical lymphadenitis 21 (14.09%), laryngitis (hoarseness of voice) 17 (11.41%), peritonsillar abscess and growth (benign/ malignant) 12 (8.05%), adenoid hypertrophy 11 (7.38%). In some studies, among the throat disorders pharyngitis was found most common by Surapaneni²¹ and Nepali et al.²² whereas the prevalence of tonsillitis was more in a study by Yeli²³.

Our study result agreed with Surapaneni H et al.²⁴ where among children otitis media among the ear diseases then rhinitis in the nasal diseases and pharyngitis followed by tonsillitis in the throat diseases was found to be most common.

Conclusion

Among otolaryngological (ENT) diseases, ear diseases are most common followed by nose and then throat diseases. Most of these diseases are of acute onset with less than a year of disease duration.

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