

Original Article



Demographic Diseases Pattern in the ENT and Head and Neck Surgery Outpatient Department of A Tertiary Care Hospital

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Abstract

Background: The distribution of diseases in society varies across communities and geographical places. Diseases of the ear, nose, and throat (ENT) pose severe public health issues in both rural and urban populations.

Objective: To determine the demographic disease pattern in the ENT and Head and Neck Surgery (HNS) Out Patient Department (OPD).

Materials and Methods: This retrospective study is based on patient's medical records who attended the Out Patient Department of Otorhinolaryngology, Khwaja Yunus Ali Medical College and Hospital (KYAMCH). The study records covered 2312 patients who visited the Out Patient Department from September 2019 to August 2020 were included in this study.

Results: Study of patients in light of their diagnoses of chronic tonsillitis in 367 (15.87%), followed by chronic pharyngitis affected 347 (15.01%) patients, allergic rhinitis in 135 (5.74%), acute/chronic adenotonsillitis with otitis media with effusion in 133 (5.75%), and otitis externa in 123 (5.32%) individuals. In a broad heading, if the tonsils are mainly affected, it's called tonsillitis; if the throat is mainly affected, it's called pharyngitis.

Conclusion: High prevalence of chronic tonsillitis and pharyngitis among ENT illnesses. The most prevalent ENT conditions include chronic suppurative otitis media (CSOM/COM) 11.63%, allergic rhinitis, acute and chronic adenotonsillitis, otitis media with effusion (OME), otitis externa and acute tonsillitis.

Keywords: Population; ENT diseases, Chronic tonsillitis, Pharyngitis, Otitis media, Rhinitis, Tonsillitis.

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Introduction

The pattern of diseases in society varies in different communities and also in different geographical areas.¹ Diseases related to ear, nose and throat (ENT) pose serious public health problems both in rural and urban populations.¹ Knowing the pattern of such diseases in Bangladesh would help define the content and extent of the medical curriculum involving otorhinolaryngology head and neck diseases. This is relevant, as the local medical graduates would then have relatively enriched knowledge and skill in managing the relatively common and prevailing diseases.²

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.³ Diseases related to ear, nose and throat (ENT) pose serious public health problems both in rural and urban population. Knowledge of prevalence of ENT diseases in a particular region is important to estimate the magnitude and distribution of morbidity in order to formulate appropriate measures to manage such cases.⁴

This will help in identifying the relationship between the ENT related problems and the socio-demographic factors. It also provides opportunity in creating awareness among the target population and to plan methods for preventive and curative actions by health care agencies in that area.⁵

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Materials and Methods

This is a retrospective study based on the medical records of patients attending the Out Patient Department of Otorhinolaryngology, Khwaja Yunus Ali Medical College and Hospital, The study records covered 2312 patients who visited OPD over a period of one year extending from September 2019 to August 2020. Demographic data (age and sex) and data on clinical diagnosis of patients were recorded on a pre-designed proforma. Collected Data was classified into four groups of patients on the basis of clinical diagnosis involving different subdivisions of Otorhinolaryngology viz. ear, nose, throat, head and neck. The results were tabulated and statistically analysed in the form of frequency and percentage. For calculation of percentage in this study, total number of patients with ENT morbidity was taken into consideration.

Results

Table I: Distribution of the study patients by age (n=2312)

Age (years)	Number of patients	Percentage
≤10	299	12.9
11 -20	357	15.4
21 -30	605	26.2
41 -50	455	19.7
51 -60	284	12.3
61 -70	181	7.8
71 -80	96	4.2
81 -90	33	1.4
>90	2	0.1
Mean±SD	30.9 ±17.1	
Range (min max) -	1.0 - 84.0	

Table 1 shows that more than one fourth (26.2%) patients belonged to age 21-30 years. The mean age was found 30.9±17.1 years with range from 1.0 to 84.0 years.

Table II: Distribution of the study patients according to sex (n=2312)

Sex	Number of patients	Percentage
Male	1079	46.7
Female	1233	53.3

Table 2 shows that more than half (53.3%) patients were male and 1079(46.7%) patients were female. Male female ratio was 1:1.14.

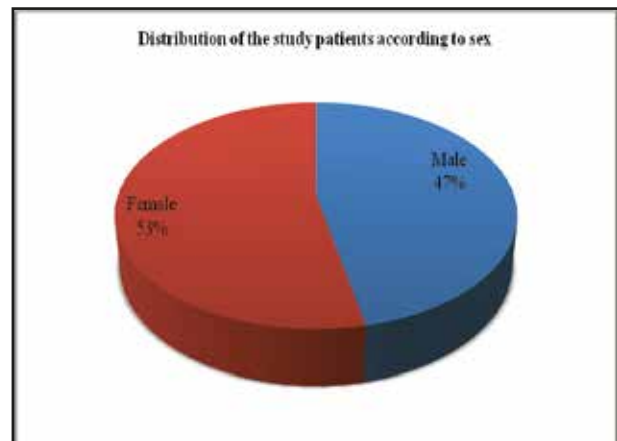


Figure 1: Distribution of the study patients according to sex (n=2312)

Table III: Distribution of the study patients according to bilateral (n=2312)

Bilateral	Number of patients	Percentage
Yes	199	8.6
No	2113	91.4

Table 3 shows that 199 (8.6%) patients were bilateral.

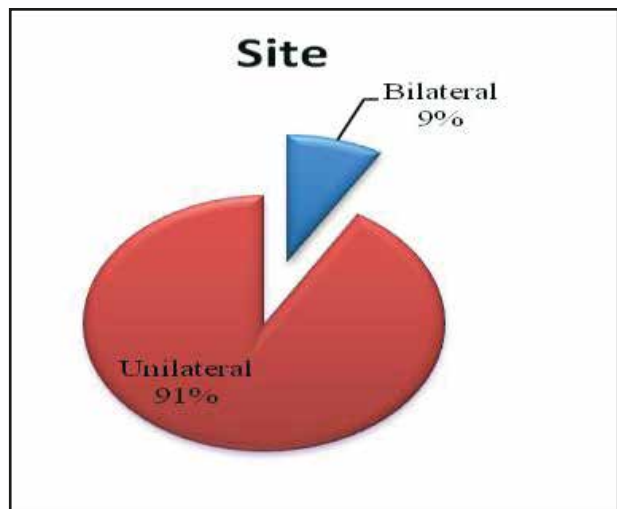


Figure 2: Distribution of the study patients according to bilateral (n=2312)

Table IV: Distribution of the study patients according to diagnosis (n=2312)

Diagnosis	Number of patients	Percentage
Acute Tonsillitis (Ac. TS)	101	4.37
Chronic Tonsillitis (Ch. TS)	367	15.87
Acute Suppurative Otitis Media (ASOM) / (AOM) in Rt/ Lt/ both Ear	36	1.56
Deviated Nasal Septum (DNS)	88	3.81
Adenotonsillitis (Adeno TS)	60	2.60
Acute Pharyngitis / Acute Pharyngotonsillitis	37	1.60
Chronic Suppurative Otitis Media (CSOM) / (COM) in Rt/ Lt/ both Ear	269	11.63
Acute/chronic Adenotonsillitis with Otitis Media with Effusion (OME)	133	5.75
DNS with/without Hypertrophied Inferior Turbinate(HIT) with Maxillary sinusitis (unilateral/bilateral)	19	0.82
Maxillary Sinusitis / Pansinusitis (unilateral/bilateral)	74	3.20
Maxillary Polyp (unilateral/bilateral)	10	0.43
Nasal Polyp (unilateral/bilateral)	5	0.22
Aural Polyp (unilateral/bilateral)	2	0.09
Pre -auricular sinus/ Fistula with/without infections (unilateral/bilateral)	6	0.26
Laryngitis	54	2.34
Carcinoma(Ca.) Larynx / Vocal Cord growth	29	1.25
Goiter (Carcinoma/colloid/MNG [Multinodular goiter]) with/ without hyper/hypothyroidism	59	2.55
Cholesteatoma in Rt/ Lt /both Ear	2	0.09
Allergic Rhinitis (AR)	135	5.84
Otitis Externa (OE) = Wax, Furunculosis, Otomycosis Rt/ Lt/ both Ear	123	5.32
Neck Mass / Cervical lymphadenopathy (Tubercular/ Metastatic)	27	1.17
Migraine / Headache	30	1.30
Otitis Media with Effusion [OME] - (B/L, Rt. Lt) with/without Eustachian Tube Dysfunction (ETD)	24	1.04
Epistaxis with/without polyp, hypertension, trauma, Road traffic accident	41	1.77
Carcinoma of Oral cavity, Base of the Tongue (BOT)	5	0.22
Globus Pharyngitis	22	0.95
Lacerated / cut injury in face and head -neck region	13	0.56
SNHL (Sensorineural hearing loss)/ MHL (Mixed type hearing loss) with/without Tinnitus	63	2.72
Temporomandibular (TM) joint arthritis (unilateral/bilateral)	13	0.56
Carcinoma (Ca.) Tonsil/ Palatine Tonsils	12	0.52
Foreign Body (FB) - Nose, Ear, Larynx, Pharynx, Throat	37	1.60
Leukoplakia, Epulis, Aphthous ulcer, Tongue ulcer/glossitis, Submucosal fibrosis	39	1.69
Chronic Pharyngitis	347	15.01
Rec. TS	30	1.30

Table 4 shows that 367 (15.87%) patients were suffering from chronic tonsillitis diseases followed by 347 (15.01%) were chronic pharyngitis, 269 (11.63%) were Chronic Suppurative Otitis Media (CSOM) / COM, 135 (5.84%) were allergic rhinitis, 133(5.75%) were acute/chronic adenotonsillitis with Otitis Media with Effusion (OME), 123 (5.32%) were Otitis Externa (Wax, Furunculosis, Otomycosis), 101(4.37%) were acute tonsillitis, 88 (3.81%) were Deviated Nasal Septum (DNS) and 74 (3.2%) were maxillary sinusitis / pansinusitis. Others results are depicted in this table.

Discussion

In this study observed that more than one fourth (26.2%) patients belonged to age 21-30 years. The mean age was found 30.9 ± 17.1 years with range from 1.0 to 84.0 years. Saroha and Tomar⁶ study reported most frequent age group presenting to ENT OPD was 21-30 years (25.20%). This is in accordance with a study by Das where most frequent age group was 21-30 (20.82%), followed by 11-20 and 31-40 age group,⁷ as young age group is most common age group to seek medical advice in ENT field.^{8,9} Mahfuz et al.¹⁰ reported age ranges from 0 to 90 years, mean age of patients 44.522 years (SD 26.16), majority of patients were age group 0 to 15 (39.10%). Dey et al.¹¹ also observed that the age below 20 years comprised 5% and below 40 years comprised 25%.

In current study observed that more than half (53.3%) patients were male and 1079 (46.7%) patients were female. Male female ratio was 1:1.14. Shah and Salm¹² reported 129 (51.6%) were males and 121 (48.4%) were females. Saroha and Tomar⁶ observed (51.98%) were males and 2809 (48.02%) females. Male: female ratio was 1.08:1. Bleach et al.¹³ in a UK based study, reported in their study a male: female ratio of 1.1:1. According to a study by Mina et al.¹⁴ the ratio of male: female was 1.13:1 and another study Das⁷ was 1.17:1. Mahfuz et al.¹⁰ study 45.55% were male & 54.45% were female. Male female ratio 1:1.2.

In present study observed that 367 (15.87%) patients were suffering from chronic tonsillitis diseases followed by 347 (15.01%) were chronic pharyngitis, 269 (11.63%) were Chronic Suppurative Otitis Media (CSOM) / COM, 135 (5.84%) were allergic rhinitis, 133 (5.75%) were acute / chronic adenotonsillitis with Otitis Media with Effusion (OME), 123 (5.32%) were Otitis Externa (Wax, Furunculosis, Otomycosis), 101 (4.37%) were acute tonsillitis, 88 (3.81%) were Deviated Nasal Septum (DNS) and 74 (3.2%) were maxillary sinusitis / pansinusitis. Shah and Salma¹² study observed 33 (13.2%) were suffering from acute otitis media, 21 (8.4%) had acute pharyngitis, 11 (4.4%) had acute sinusitis, 13 (5.2%) had acute tonsillitis, 33 (13.2%) had allergic rhinitis, 38 (15.2%) had bilateral ear wax, 10 (4.0%) had chronic pharyngitis, 27 (10.8%) had chronic suppurative otitis media, 26 (10.4%) had chronic tonsillitis, 20 (8.0%) had deviated nasal septum, 7 (2.8%) had epistaxis and 11 (4.4%) were suffering from otitis externa. According to our study out of 2312 cases 135 patients (5.84%) were of allergic rhinitis. The difference in result is due to sample size which is small in our study.¹⁵ A study done in India on the prevalence of preventable ear disorders in primary school children (aged 5 to 12 years) through pro-forma questionnaire in 15718 primary

school children. Most common ENT disorders seen in these children were Ear wax in 7.93%, chronic otitis media in 4.79% & 3.66% suffered from otitis media with effusion. Acute otitis media was detected in 0.65% children and foreign bodies were found in 0.34%. According to our study, out of 2312 patients of Otitis Externa (Wax, Furunculosis, Otomycosis) are 5.32% and acute / chronic adenotonsillitis with Otitis Media with Effusion are 5.75%. Difference in results is due to sample size and age groups.¹⁶ Retrospective study was conducted at tertiary care hospital in Peshawar Pakistan. Most of the ENT disorders were diagnosed in those infants were Pharyngitis (30.0%) Otitis media 29.33%, tonsillitis (25.33%) and Nasal Obstruction (5.3%). This study shows that ENT diseases are more common in children.¹⁷ Saroha and Tomar⁶ most common diagnosis was CSOM (34.97%) followed by allergic rhinitis (29.88%), DNS (22.0%), epistaxis (15.91%) and wax (12.33%). Mina et al.¹⁴ found wax to be more common than CSOM. Most common disease of ear in developing countries is CSOM, which is further leading to a major burden on health care system and society.^{18,19} The major burden of ear diseases being chronic suppurative otitis media is also reported by WHO.²⁰ In other studies also it was noted that allergic rhinitis is most upcoming disease.⁹ Due to increase in pollution allergic rhinitis and its comorbidities are on rising trend. Next was DNS which has been reported as most common diagnosis by Mina et al.¹⁴ in their study. Mahfuz et al.¹⁰ reported top most ten diseases were chronic tonsillitis (9.50%), adenoid hypertrophy (9%), acute otitis media (7.70%), chronic otitis media (7.59%), rhinitis (7.16%), acute tonsillitis (6.50%), wax 6.40%, hearing loss & tinnitus (5.70%), rhinosinusitis (3.24%) and deviated nasal septum (2.80%). In the studies by Pin et al.²¹ and O'Driscoll et al.²² the incidence of chronic tonsillitis was on the top as this study. A study by Timsit et al.²³ showed that allergic rhinitis is the most common paediatric ENT disease in almost 20% of all patients and chronic otitis media was the second most common in 12% of cases.

Conclusion

In study showed that high prevalence of chronic tonsillitis diseases and chronic pharyngitis in the ENT diseases. Chronic Suppurative Otitis Media (CSOM) / COM and allergic rhinitis, acute / chronic adenotonsillitis, Otitis Media with Effusion (OME), Otitis Externa and acute tonsillitis also have been the most common ENT diseases.

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