

ENT diseases presenting to a tertiary care hospital

Abstract

Objectives: To determine the frequency of different ENT diseases presenting at outpatient department and to educate people about different ENT diseases, their early treatment and prevention.

Methodology: An observational cross sectional study was performed in Ayub Teaching Hospital, Abbottabad between 15 May 2016 and 10 Aug 2016. A non-probability convenient sampling technique was used to collect data from 250 participants from patients presenting at OPD. Data about patient particulars and different diseases was collected through a well-structured questionnaire. Data was secured and confidentiality was maintained. Data was analyzed using SPSS 21.

Results: Out of all participants 250, 129(51.6%) were males and 121(48.4%) were females. Most of them 76(30.3%) had only primary education and a good number were also matriculate. Majority of the patient 165(66%) were socio-economically poor. Ear problems were most commonly encountered. Among ear problems, bilateral ear wax was the most common 38(15.2%) followed by acute otitis media 33(13.2%) and chronic suppurative otitis media 27(10.8%). Throat problems were 2nd in number to the ear problems. Most commonly presented throat problems were of tonsillitis including both acute and chronic conditions accounting for 39(15.6%) cases. Nose problems comes behind the ear and throat diseases and most common problems were of allergic rhinitis 33(13.2%) and DNS 20(8%). Cases of sinusitis and epistaxis had a very low frequency. Most of these patients were suffering from these problems for the last one year. Most of them had taken medical treatment from the Govt. Hospitals.

Conclusion: Among ENT diseases, ear diseases are most common followed next by nose and then throat diseases. Most of these diseases are of acute onset with less than a year of disease duration. They exist mainly in low socio-economic class and most of the patient avail the medical treatment.

Keywords: ENT diseases, OPD, frequency, otitis media, medical treatment

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Introduction

The usual problems which makes a patient to visit doctor or health care provider in both rural as well as urban communities are related to the ENT.^{1,2} Many developing countries have few experts and very poor facilities to support the experts and thus creates a very heavy workload on otorhinolaryngologists.³ There are a lot of ENT diseases which range from minor problems like allergies to severe problems like malignancies which affect lives of people and is becoming a public health problem. Some ENT diseases are congenital and others are acquired. The acquired causes may be trauma, infections, inflammation, vascular and neurological. Some are of acute while others are of chronic onset.⁴ According to World Health Organization 42 million people (age>3 years) have hearing loss. The prevalent cause is otitis media, in childhood infection common cold is the first main cause.⁵ Firstly, and the Eustachian tubes are very smaller and straight in children as compared to adults. Moreover, children defense mechanism is underdeveloped as compared to adults.^{6,7} and mostly not diagnosed earlier and treated poorly in initial phase, it can go to chronic phase which is the chronic supportive otitis media. This chronic condition can lead to many complications even in death. Each year around 2100 people die due to complications of otitis media.⁸

Rupture of the tympanic membrane which is very common, can be caused either by acute or chronic middle ear infections or by trauma. It may lead to conductive hearing loss otitis media.⁹ DNS is mal-alignment of nasal septum which may be either congenital or caused by trauma. Epistaxis is another condition in which bleeding occurs from the nose. Most common cause is finger nail trauma. Other include high BP, use of anticoagulants, infection, liver disease etc.¹⁰ ENT diseases are responsible for considerable morbidity among infants and young children. Acute infections of upper respiratory as well as recurrent disease and disorder of Ear, Nose and Throat are more common in early stages of life. If remain untreated it may complicate and endanger the life of an individual and may affect the developmental capability of the child.¹¹ Otitis media is the most common disorder in infants and children and is common cause of deafness in child. A study was conducted on ENT disorders in children in India, it was found that otitis media is the most common in male children (53.2%). Most of these children were from lower socioeconomic families, children living in combine families and had uneducated mothers.¹² A similar study was conducted on children in UAE and the results were that otitis media was second most common disease after rinitis.¹³ A study was also conducted on complications of otitis media and it was found that perforations in the tympanic membrane was the most common

complication of otitis media followed by cholesteotoma, mastoiditis and atelectasis of tympanic membrane.¹⁴

A study was conducted on causes of perforation of tympanic membrane showed that it is caused by either acute or chronic infection or by trauma. It causes conductive hearing loss and predisposes ear to infection. Some perforations heal spontaneously and other by surgery.¹⁵ A study was conducted in which group A beta hemolytic streptococcus was isolated by pharyngeal culture in 2 years old children. Patient's whose age were less than 2 years had a greater frequency of fever, skin eruption and catarrhal (influenza like) symptoms than older children. The results of the study were pharyngeal irritation 90.7%, odynophagia and adenopathies in 55.8%. The two peaks occur in May and September and sporadic cases occur throughout the year.¹⁶ Laryngeal cancer is common cancers of the throat. According to research of National Cancer Registry, ICMR, 2005 report, laryngeal cancer occurs at 3.29 new cases in male and 0.42 new cases in female per 100,000 populations. Another study was conducted on black South Africans for the risk factors of laryngeal cancer and it was found that smoking and alcohol were the major causes of laryngeal cancers.¹⁷ This study was designed to determine the frequency of common ENT diseases presenting at ENT OPD and to educate about these diseases, early treatment and prevention.

Materials and methods

It was a Descriptive cross sectional study done at Ayub teaching hospital in ENT department to find the frequency of ENT diseases. It lasts from May 15 to August 10, 2016. Our study population was all patients of ENT OPD at Ayub Teaching Hospital, Abbottabad (ATH, Atd). Data was collected and entered using "Sample size determination in health studies". Sample consists of 250 patients who were selected using categorical sampling.

Inclusion criteria: Patients having ENT diseases.

Exclusion criteria: patients having diseases other than ENT problems and admitted patient.

Data was collected by using non probable convenient sampling. A pre-tested questionnaire consisting of questions about frequency of diseases related to ENT and questions about diagnosis and duration were commonly used in surveys. Data was obtained by filling questionnaires. Data was secured and confidentiality was maintained. The data was entered and analyzed using computer software SPSS version 21. The quantitative variables like Age, monthly income and duration of disease were described as mean±standard deviation. Categorical variables like gender, education, occupation, socioeconomic status, treatment taken before and current diagnosis were described in terms of frequencies and proportion. Data was presented in the tables and figures.

Results

We studied a total sample of 250 patients (mean age=27.63 years with minimum of 1 and maximum of 77). Majority of patients 181(72.4%) presenting to ENT OPD belongs to district Abbott bad, small number of patients from neighboring districts like Mansehra 27(10.8%) and 13(5.2%) from Haripur. In addition, 29(11.6%) patients were from other districts. Among total of 250 of our study participants, 129(51.6%) were male and 121(48.4%) were females. The socioeconomic status of population showed that majority of them

165(66%) belong to poor class, 72 (28.8%) belong to middle class while only small number of patients 13(5.2%) belong to the upper class. Employment status was such that majority of the patients 54(21.6 %) were govt. servant while 28(11.2%) were laborers. Most of the patients 77(30.8%) were related to the other occupations including private jobs. Those who do not work also contribute a quite good number 44(17.6%). Most of the patient having ENT diseases belongs to the urban life 172(68.8%) while a small number of patients were from Rural areas 78(31.2%). The large number of patients from urban population is due to easy access of the patients as compared with rural areas. Most of the patients 127(50.8%) presenting to ENT OPD were unmarried while 119(47.6%) were married. 3(1.2%) were divorced and only one patient (.4%) was widow. This table shows that ear wax is the most common condition which causes a large number of patients 38 (15.2%) to attend the ENT OPD. The common diseases lying next to the ear wax are acute otitis media and allergic rhinitis 33(13.2%), 33(13.2%) patients respectively. Chronic supportive otitis media (CSOM) lies next in the list. Chronic tonsillitis 26(10.4%) and acute pharyngitis 2(8.4%) has also a quite good number of patients. Many patients also had Deviated nasal septum (DNS) 20(8.0%). This table also shows that epistaxis, otitis external and acute sinusitis although present but there prevalence is low as compared to other conditions discussed above. According to the duration of illness, most of the patient 193(77.2%) were suffering from the condition from less than 1 year of duration. 46 (18.4%) of the patients were having the duration of the disease ranging from the 1-5 year while only 4(1.6%) patients were having the disease for greater than 10 years. Majority of the patients 119(47.6%) are taking treatment from Gov. While a few number 29(11.6%) from private hospital. 9(3.7.2%) patients were not taking any treatment at all. Nature of the visit of patient, either first time or follow up. It shows that most of patient 133(53.2%) attending the ENT OPD were came for follow up and 117(46.8%) were came for first visit.

Discussion

The frequency of ear, nose, and throat disorders among children as well as adults is increasing health problem in Pakistan. This study aims to determine incidence of ENT diseases in patients attending the ENT OPD. Firstly, ear wax is the most prevalent ENT disease followed by acute otitis media (AOM) & chronic supportive otitis media (CSOM), secondly earwax effect 6% of the general population and is considered major health problem world wide.¹⁸⁻²⁰ Our study also revealed high prevalence rate of earwax in both children as well as adults. Okafor found in southern part of Nigeria that wax is the third common cause of hearing disease.²¹ Sanjay p et al.²² conducted study and showed presence of acute otitis media (AOM) in majority followed by CSOM.²² chronic supportive otitis media and its association with deafness continues to be a common health problem in socioeconomic settings. Providing improved health services and good access to health care among children in such communities is necessary to decrease the burden of illness.²³ Allergic rhinitis is one of the common ENT disorder presented in ENT OPD in our study population. Additionally, allergic rhinitis significantly impairs quality of life; congestion causes allergic rhinitis sufferers decreased daytime productivity at work or school and reduces night-time sleep time and quality. Annually, allergic rhinitis leads to approximately \$6 billion in overall health care expenditures and affects tenth of millions of Americans. These result are in accordance with our study.²⁴ Deviated nasal septum (DNS) is

quite common, being present in approximately 20% of all newborns. External injury is also one of its cause.²⁵ This high prevalence rate of DNS is in accordance with our study. According to our study, epistaxis in children is seen only in small number of cases. This result is similar to a Nigerian study.²⁶ It is commonly presented in 3rd decade of life and the fact that the peak incidence was between 21-30 years could also be responsible for trauma being the most common cause since people in the age group is often agile and also involved in sporting activities. Pharyngitis is one of the most frequent illnesses seen in a study.²⁷ But in current studies it constitutes only 12.4%.

Chronic tonsillitis is another common problem seen at an Otorhinolaryngology clinic. Recurrent tonsillitis can be a source of upper & lower respiratory infections. Enlargement can lead to sleep problem breathing, eating disorders & even growth problems.^{28,29} The current study shows incidence of tonsillitis is 15.6% which is less comparable to study by Sanjay et al.²² which showed 42.9% of cases. The strength of the study was the high response rate; however, this study was carried out only in one Government Hospital. The gender ratio of our study participants is almost same with only a very small difference. Approval from Ethics committee was taken. Some respondents left some panels blank. Patient's confidentiality about their privacy was gained in data collection. Another limitation of our study was that we focused mainly on the major ENT diseases presented in ENT OPD and their prevalence not taking into consideration their causes and treatment.

Conclusion

From the current study, it is concluded that among ENT disorders presenting to ENT OPD, majority of them in this region are ear problems followed next by nose and then throat diseases. Most of these diseases are of acute onset with less than a year of disease duration. ENT diseases are common in people with low education level. They exist mainly in low socio-economic class and most of the patient avail the medical treatment. A good point is that most of the people do follow up.

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Conflict of interest

Author declares no conflict of interest.

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