



Assessment of ENT diseases in Patients presenting to Tertiary Care Hospital

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ABSTRACT

ENT diseases are severe public health illnesses distressing patients of all age groups. These comprise different infections, inflammatory diseases, tumors, trauma, vascular diseases, neurologic conditions etc. This study was conducted for assessment of ENT diseases in patients presenting to tertiary care hospital. This was a cross sectional study conducted at the ENT department of Khalifa Gulnawaz Teaching Hospital Bannu Khyber Pakhtunkhwa, Pakistan. This study was conducted for a period of one year from January 2019 to December 2019. For data collection non-probability convenient sampling technique was used. A total of 350 patients presenting to ENT OPD were included in our study. A well-structured questionnaire was designed to collect information about patient particulars and different diseases. The security and confidentiality of the collected data was maintained. SPSS 19 was used for analysis of data. In the current study patients of all age group were included having ENT diseases. ENT disease prevalence was higher in male (55%) as compared to female (45%). Majority of these diseased patients have lower class family status (70%) having no proper health care system. Ear diseases (40%) were most common followed by nasal diseases (34%) and throat problems (26%). Our study conclude that ENT diseases are highly prevalent in different age group patients. Amongst ENT diseases, most common diseases are ear diseases than nose diseases while nose diseases have high prevalence than throat problems. The duration of most of these diseases are about one year and these are mostly acute problems. In low education level patient, ENT diseases was commonly observed. Low socio-economic class people are mainly affected by ENT diseases. There is need of awareness about ENT diseases. Government should arrange different health care program to educate people about ENT diseases.

Keywords: Assessment; ENT; Socio-economic class; awareness

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INTRODUCTION

ENT diseases is a set of large number of disease affecting both children and adults of both gender. These diseases comprise of infections, inflammatory diseases, tumors, trauma, vascular diseases, neurologic conditions etc. These are community based diseases and also depend upon the seasonal variations. ENT diseases are key public health problems distressing all age groups [1]. Disease like chronic supportive otitis media and acute otitis media has cause dangerous outcomes if not treated on time. ENT diseases seriously affect hearing, language, cognition and performance in school [2]. South Asia has the highest prevalence of hearing loss disability amongst adults, adolescents and children than Asia Pacific and Sub-

Saharan Africa [3]. The impact of foreign body impaction in ear, nose and throat are common and if inhaled might be fatal [4].

Some of the ENT disease cause minor problem like allergy while some cause dangerous problem like cancer which is an important public health issue and affect the lives of the people. Some diseases of ENT are congenital while some are acquired (5). 42 million people have hearing loss disability in a report of World Health Organization. The high prevalence of hearing loss disability is mainly caused by otitis media and common cold in children [6]. This might be due to smaller and straight Eustachian tubes than adults or might be due to underdeveloped defense mechanism in children than adults [7, 8]. If otitis media is not properly diagnosed and treated earlier then it progress to chronic supportive otitis media. This chronic condition is very dangerous and even it can cause death. Each year about 2100 people die due to otitis media (9). Acute or chronic infection or trauma can cause rupture of the tympanic membrane which is one of the common problem [10]. Alignment of nasal septum in male is DNS which might be congenital or might be caused by trauma. Another ENT disease condition is called epistaxis which cause nose bleeding. The major cause for this is trauma due to nail of finger while it might be caused by high Blood Pressure, anticoagulants usage, infection, disease of liver [11]. In infants and young children ENT diseases are accountable for significant morbidity rate. In early stages of life the common infections are acute infections of upper respiratory and recurrent disease. If these problems are not treated on time then it becomes complicated and put the life of the individual in danger and could also affect the ability of the child to develop [12]. Previous study conducted in India on children reported that otitis media is common in male (53.2%) as compared to female. In this study majority of the children were from families having lower socio-economic status, combined family and having uneducated mothers [13]. A previous study reported in UAE on children reported that rhinitis is the most common disease as compared to otitis media [14].

A previous study reported that acute or chronic infection or trauma causing perforation of tympanic membrane might result in hearing loss and disposes infection ear. Some of the perforations has the ability to heal spontaneously while other need surgery [15]. A previous study reported that in two years old children, isolation of beta hemolytic streptococcus of group-A was done from pharyngeal culture. Severe sign and symptoms such high temperature, eruption of skin and catarrhal like influenza were observed inpatient's having age less than two years as compared to older children [16]. Common cancers of throat is laryngeal cancer. Previous study done on black people of South Africans reported that the major hazardous factors for laryngeal cancer are smoking and alcohol [17]. This study was therefore conducted to find out the prevalence ENT problems in patients attending the OPD of ENT department in a tertiary care hospital.

MATERIAL AND METHODS

This was a cross sectional study conducted at the ENT department of Khalifa Gulnawaz Teaching Hospital Bannu Khyber Pakhtunkhwa, Pakistan. This study was conducted for a period of one year from January 2019 to December 2019. Our research study was approved by local research and ethical committee. After approval, data collection was done from 350 patients that attend the OPD of ENT department by using non-probability convenient sampling technique. A well-structured questionnaire was designed to collect information about patient particulars and different diseases. The security and confidentiality of the collected data was maintained. Consent form was signed from all the participants in our study. In the current study patients of all age group were included having ENT diseases. The inclusion criteria for our study was all the patients having ENT problem and attending ENT OPD while the exclusion criteria was other patients having no ENT problem. SPSS 19 was used for analysis of data.

The various categorical variables such as gender, education, occupation, socioeconomic status and marital status were expressed in form of frequencies and proportion.

RESULTS

A total of 350 patients presenting to ENT OPD of Khalifa Gulnawaz Teaching Hospital Bannu were examined for a period of one year. Most of the patient were from district Bannu (70%) and less number of patients were from district Karak (18%) and district Lakki Marwat (12%). (Figure 1) There were more male (56%) participant in our study as compared to female (44%). According to the socio-economic status most of the patient belong to lower class (70%) followed by middle class (20%) and upper class (10%). According to the employment status, most of the patients work in private sectors (36%), followed by government servant (32%), not working (20) and laborers (12%). ENT disease was observed to be high prevalent in patients from urban area (70%) as compared to rural area (30%). According to the marital status most of patients were unmarried (60%) while 40% of the patients were married. (Table 1) Amongst ENT disease ear problems (40%) were more prevalent followed by nose (34%) and throat

(26%). (Figure3) Amongst ear problems otitis media was highly prevalent (30%) followed by wax (6%), foreign body (2%) while other ear Problems such as trauma to the ear, fungal Infection were observed to be 2%. (Table 2) Amongst nose problems rhinitis (17.14%) was highly prevalent followed by sinusitis (8.57%), epistaxis (5.71%) and foreign body(2.57%) (Table 3) while amongst throat disorders tonsillitis was highly prevalent (11.43%) followed by pharyngitis (7.14%), enlarged adenoids (4.29%), others(2.29%) and foreign body (0.86%). (Table 4)

■ Bannu ■ Lakki marwat ■ Karak ■ Total

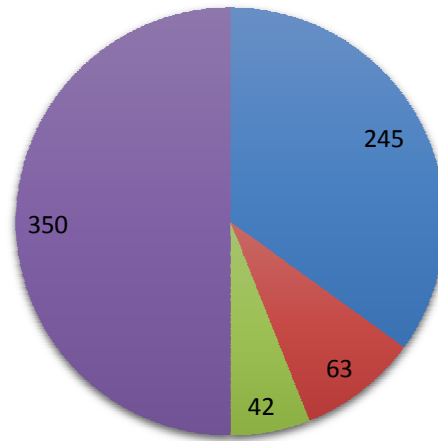


Figure 1: Area wise prevalence of ENT diseases

Table 1: Frequency of ENT diseases according to demography of the patients

Characteristics		Frequency	Percentage
Gender	Male	196	56%
	Female	154	44%
Socio-economic status	Lower class	245	70%
	Middle class	70	20%
	Upper class	35	10%
Employment status	Private	126	36%
	Government	112	32%
	Not working	70	20%
	Laborers	42	12%
Marital status	Married	140	40%
	Unmarried	210	60%
Residential status	Urban	245	70%
	Rural	105	30%

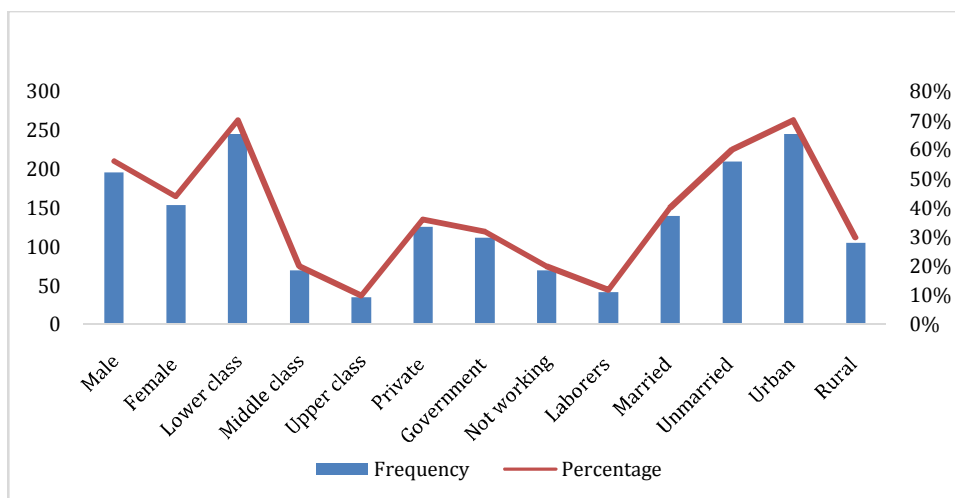


Figure 2: Frequency of ENT diseases according to demography of the patients

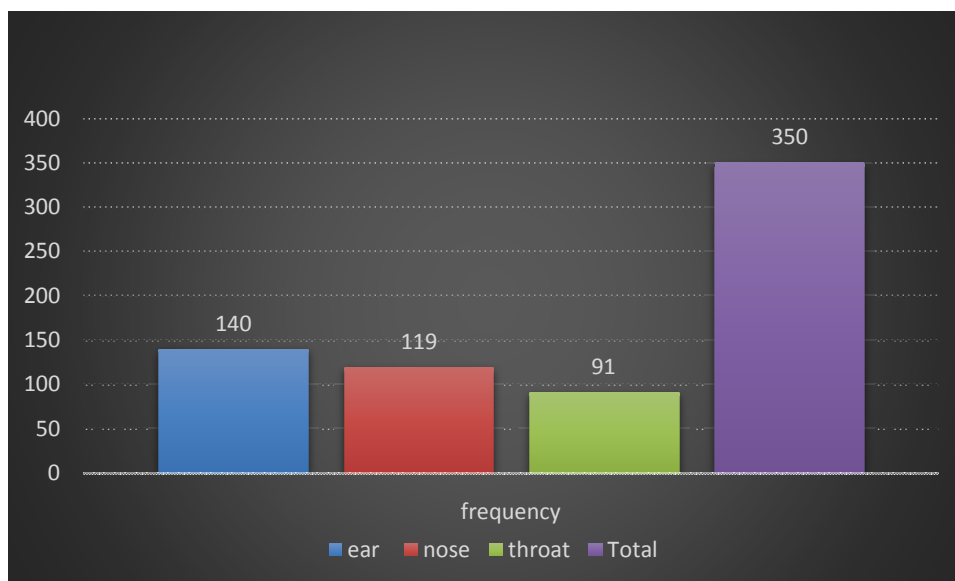


Figure3: Frequency of ENT diseases amongst ear, nose and throat

Table 2: Prevalence of ear diseases among study population

Ear disease	Frequency	Percentage
Otitis media	105	30%
Wax	21	6%
Foreign body	7	2%
Others	7	2%
Total	140	40%

Table 3: Prevalence of nose diseases among study population

Nose disease	Frequency	Percentage
Rhinitis	60	17.14%
Sinusitis	30	8.57%
Epistaxis	20	5.71%
foreign body	9	2.57%
Total	119	34%

Table 4: Prevalence of throat diseases among study population

throat disease	Frequency	Percentage
Tonsillitis	40	11.43%
Pharyngitis	25	7.14%
Enlarged adenoids	15	4.29%
Others	8	2.29%
Foreignbody	3	0.86%
Total	91	26%

DISCUSSION

ENT diseases is a set of large number of disease affecting both children and adults of both gender. These diseases comprise of infections, inflammatory diseases, tumors, trauma, vascular diseases, neurologic conditions etc. These are community based diseases and also depend upon the seasonal variations. ENT diseases are main public health problems affecting all age groups [1]. Therefore this study was conducted for assessment of ENT diseases in patients presenting to tertiary care hospital. In our study a total of 350 patients presenting to ENT OPD of Khalifa Gulnawaz Teaching Hospital Bannu were examined for a period of one year. Most of the patient were from district Bannu (70%) and less number of patients were from district Karak (18%) and district Lakki Marwat (12%). There were more male (56%) participant in our study as compared to female (44%). This result of sex difference is not in accordance with the other study [18] while our result is in accordance with the other study done in Pakistan [19]. In a less developed countries like Pakistan the major risk factors for the public health problems are poor socioeconomic status, large family size, living in overcrowded area, poor sanitation, lack of provision of basic health care facilities and lack of awareness amongst parents. According to the socio-economic status most of the patient belong to lower class (70%) followed by middle class (20%) and upper class (10%).

According to the employment status, most of the patients work in private sectors (36%), followed by government servant (32%), not working (20) and laborers (12%). ENT disease was observed to be high prevalent in patients from urban area (70%) as compared to rural area (30%). According to the marital status most of patients were unmarried (60%) while 40% of the patients were married. Our result is in accordance with the other study done at Ayub teaching hospital in Pakistan in which comparable results were obtained [19]. Amongst ENT disease ear problems (40%) were more prevalent followed by nose (34%) and throat (26%). Other studies also reported similar results [20]. Amongst ear problems otitis media was highly prevalent (30%) followed by wax (6%), foreign body (2%) while other ear Problems such as trauma to the ear, fungal Infection were observed to be 2%. Amongst nose problems rhinitis (17.14%) was highly prevalent followed by sinusitis (8.57%), epistaxis (5.71%) and foreign body (2.57%) while amongst throat disorders tonsillitis was highly prevalent (11.43%) followed by pharyngitis (7.14%), enlarged adenoids (4.29%), others (2.29%) and foreign body (0.86%).

Primarily, the most predominant ENT disease is ear wax as compared to acute otitis media and chronic supportive otitis media. In the whole world earwax is considered major health problem affecting 6% of the overall population [21-23]. A previous study done in part of southern Nigeria by Okafor reported that the third common of hearing disease is wax [24]. In an earlier study done in India by Sanjay p et al. reported that acute otitis media is highly prevalent as compared to chronic supportive otitis media [25]. The association of the chronic supportive otitis media with the deafness is a major public health concern in low socioeconomic condition [25]. In order to increase the burden of illness better health care services and good entrance to health care should be provided in such societies [26]. In the previous study pharyngitis is considered as frequent illness [27]. Another common problem seen at ENT OPD is tonsillitis. Increase in size can progress to cause problem in sleeping, breathing, disorders of eating and might cause problems of growth [28, 29].

CONCLUSION

Our study conclude that ENT diseases are highly prevalent in different age group patients. Amongst ENT diseases, most common diseases are ear diseases followed by nose and throat problems. The duration of most of these diseases are about one year and these are mostly acute problems. In low education level patient, ENT diseases was commonly observed. Low socio-economic class people are mainly affected by ENT diseases. There is need of awareness about ENT diseases. Government should arrange different health care program to educate people about ENT diseases.

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