

Original Article

Frequency of ENT Diseases Reported to Teaching Hospital Bannu-KPK

Mohammad Iqbal,¹ Sahibzada Fawad Khan,² Sohail Khan,³ Wasim Ahmad⁴

¹Bannu Medical College Bannu, ²Newshehra Medical College, Newshehra,

³Saidu Medical College, Swat, ⁴Department of Allied Health Sciences, SHS, Peshawar-KPK

Abstract

Objective: The present study helped in evaluating the incidence of ENT diseases in patients reported to ENT OPD of Khalifa Gul Nawaz (KGN) teaching hospital, Bannu-KP.

Methods: It was an observational cross-sectional study that was conducted at ENT departments of KGN teaching hospital Bannu-KP from June 2020 to November 2021. The data collection was done by “Non-probability Convenient Sampling” from 400 patients reported to ENT OPD during the study duration. A pre-designed questionnaire was used for collecting the patient's medical history and their particulars. All the data was labelled as “confidential and secured”. Statistical analysis was done using software SPSS version 21.

Results: The study was based equally for male and female. Out of total study population, 56% (n=224) were male while rest of the 44% (n=176) were female. 60% (n=240) of patients were matriculate and higher secondary level, 30% (n=120) were graduates while only 10% (n=40) were holding Masters and MS degrees. 53% (n=212) were belonging to socio-economically poor families while the rest of 47% (n=188) were from mediocre families. The prevalence of Ear infections was reported to be 15% (n=60), of Nose infection was 31% (n=124) and of throat infections was 54% (n=216). The most common ear problems were acute bilateral ear infection, Otitis media and CSOM. Nose problems included DNS, allergic rhinitis, Epistaxis and Sinusitis whereas throat problems included acute and chronic tonsillitis and chronic pharyngitis.

Conclusion: Among all study population, the most common infections were of throat origin followed by nose and ear infections. The severity of these infections was from acute to chronic having less than a year. The prevalence of the disease was found to be existed in lower income group. The possible reasons were found to be unhygienic conditions, un-health diet and involvement of parasites. It is needed to advocate the community about the ENT problems and their solution.

Keywords: CSOM, Otitis media, Sinusitis, Allergic rhinitis, DNS

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Corresponding Author: Dr Wasim Ahmad

Email: vazim4847@gmail.com

Introduction

Ear, nose and throat problems are commonly seen in rural as well urban areas in the developing countries because of people's unhygienic conditions, unhealthy diet and involvement of certain pathogens. These patients normally approach to ENT consultants in their clinics or at hospitals.^{1,2} Due to limited resources, lesser number of consultants in the hospitals and other poor health provision facilities makes huge workload on otolaryngologists.³ The lives of common people are at jeopardy due to onset of different types of minor and major ENT diseases. Among these, some are congenital while other are acquired. The various reasons

for acquired ENT diseases are infections, some sort of traumatic injury, inflammatory conditions and involvement of some neurological mediators. All these diseases are either acute or chronic in nature.⁴

The ear diseases that are most commonly reported to ENT department are Otitis externa, ear infections of multiple reasons, conductive hear loss and CSOM.⁵ Otitis media is mostly diagnosed in youngsters due to it flat alignment in them as compared to adult male or female.⁶ The report of a WHO survey revealed the CSOM accountable for hear loss in youngsters in under developed countries. The survey also reported chronic supportive otitis media as a burden of disease

as 65 to 330 million peoples are affected from the condition.

The nasal diseases reported to ENT department includes nasal tumors, DNS, deformities of nose, polyposis, rhinitis, nasal vestibule disease and epistaxis etc. The possible reasons that contribute towards the nasal diseases are some sort of surgical procedures, trauma and pathogenic involvement. The possible complications that arise as a result of nasal diseases are sinus thrombosis, meningitis and septal abscess.⁷ Epistaxis accounts for affecting 60 millions people in Africa every year. Most of the times, it can be successfully managed but its consequences are fatal some times. Both local and systemic causes contribute towards its prevalence.⁸ The management of epistaxis is done as a first aid and as a special treatment.^{9,10}

Throat related diseases that are reported to ENT OPDs are pharyngitis, tonsillitis, sore throat and cancer etc. Multiple causes are being involved in the onset of throat related disorders including viral and bacterial etc¹¹. Allergic manifestations are also involved in the onset. Laryngeal cancer is the 2nd most common cancer of the respiratory tract.¹² Numerous risk factors that play an important role in its onset are smoking, alcoholism, involvement of H. pylori and human papilloma virus etc¹³. Laryngeal cancer contribute more or less 20% of all cases in head & neck tumors. The various treatment plan includes radiotherapy or RT, total laryngectomy (TL), combined chemotherapy and TL followed by RT.¹⁴

School going children are more susceptible to ENT disorders due to cross infection problem. The cross infection problem contribute towards hampering children's physical and mental activities as well as their developmental growth and day to day performance.¹⁵

The children having age below 10years are infected with foreign bodies in their ears which may be accidental or due to the effects of some treatment. The major cause of death in this age group is accredited to tracheobronchial foreign bodies.¹⁶ Numerous studies have reported the prevalence of multiple ENT disease in children and adults due to a number of reasons.¹⁷ A study from Oman reported 7% patients having some nasal symptoms presented to ENT OPD.¹⁸ Another study that was conducted in France showed the worsening effects of allergic rhinitis on sleep.¹⁹ A study reported the effects of aeroallergens in the onset of respiratory disease disorders.²⁰

Another major respiratory tract disorder is asthma which is commonly found in both children and adults.²¹ The disease oppresses 100 to 150million inhabitants of the world with a death rate of more than 180,000. The suffering rate from asthma in Swiss general public is some 8%. In japan and Germany, the

population affected from the asthma is 3 and 4million respectively. In India, the asthma ratio is 10 to 15% in inhabitants with an age group of 5 to 11years.²² In Pakistan, its prevalence is on the go day by day with an annual increment of 5%. In Pakistan, the sufferers are in an age group of 13 to 15years.²³

Chronic rhino-sinusitis is prevailing worldwide rapidly. In US, it affects one in each seven adults²⁴ and its prevalence is 14% of total world population. In India, the prevalence of fungal sinusitis is at a higher level.²⁵ The aim of the study was to evaluate the incidence of ENT diseases in patients reported to ENT OPD of KGN teaching hospital, Bannu-KP.

Methods

It was an observational cross-sectional study that was conducted at ENT departments of KGN teaching hospital Bannu-KP from June 2020 to November 2021. The data collection was done by "Non-probability Convenient Sampling" from 400 patients reported to ENT OPD during the study duration. A pre-designed questionnaire was used for collecting the patient's medical history and their particulars. All the data was labelled as "confidential and secured". Inclusion criteria was defined as patients having ENT disorders. Exclusion criteria was defined as patients having disorders other than ENT in origin. The age of patients, their income and disease length were labelled as mean \pm SD. Categorical variables like sex, education, profession, socio-economic grade were described in terms of "frequencies and proportion". Statistical analysis was done using software SPSS version 21. Data was presented in the tables and figures.

Results

The study was based equally for male and female. Out of total study population, 56% (n=224) were male while rest of the 44% (n=176) were female. 54% (n=216) of patients were residents of district Bannu whereas the rest of the 46% (n=184) were belonging to Domail, Surani, Bizen Khel and Link Road. The results are shown in figure 1 and 2 respectively.

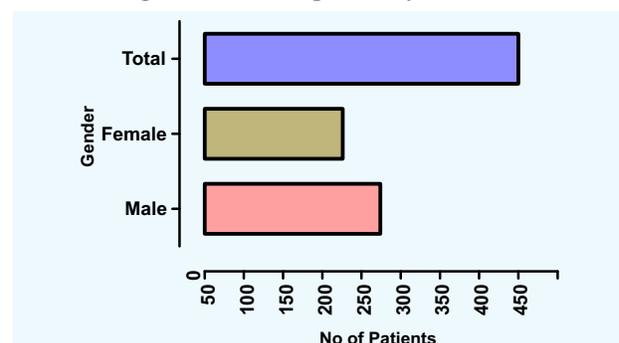


Figure 1. Gender Distribution Among Study Population

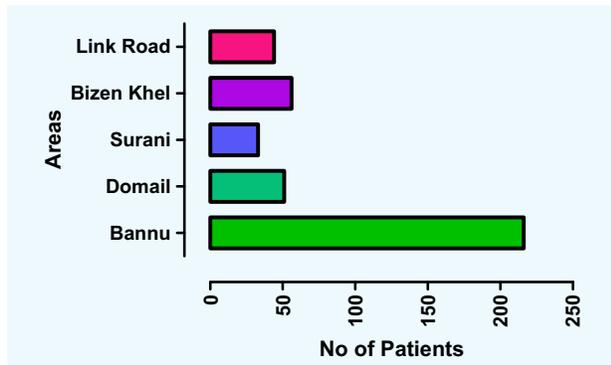


Figure 2. Area Wise Distribution of Study Population

60% (n=240) of patients were matriculate and higher secondary level, 30% (n=120) were graduates while only 10% (n=40) were holding Masters and MS degrees. 53% (n=212) were belonging to socio-economically poor families while the rest of 47% (n=188) were from mediocre families. 51.75% (n=207) were in government job, 22.00% (n=88) were having their own business and rest of the 26.25% (n=105) were labourers. The results are shown in table 1 below.

Table 1: Socio-economic Status of the Study Population

| No | Parameter | Frequency | Percent (%) |
|-----------------------------|--------------------------------------|-----------|-------------|
| Education | | | |
| 1 | Matriculate & higher secondary level | 240 | 60.00 |
| 2 | Graduation | 120 | 30.00 |
| 3 | Masters & MS | 40 | 10.00 |
| Total | | 400 | 100 |
| Socio-Economic Level | | | |
| 1 | Poor | 212 | 53.00 |
| 2 | Mediocre | 188 | 47.00 |
| Total | | 400 | 100 |
| Employment Status | | | |
| 1 | Government worker | 207 | 51.75 |
| 2 | Self-employers | 88 | 22.00 |
| 3 | Labourers | 105 | 26.25 |
| Total | | 400 | 100 |

The prevalence of ear infections was reported to be 15.00% (n=60), of Nose infection was 31.00% (n=124) and of throat infections was 54.00% (n=216). The most common ear problems were acute bilateral ear wax (53.33%), acute Otitis media and Otitis externa (30.00%) and CSOM (16.66%). Nose problems included DNS (39.51%), allergic rhinitis (33.06%), Sinusitis (17.74%) and Epistaxis (9.677%) whereas throat problems included acute and chronic tonsillitis (48.14%) and chronic pharyngitis (51.85%). The results are displayed in table 2 below.

Table 2: Distribution of Ear, Nose and Throat Disorder among Study Population

| No | Complication | Frequency | Percent (%) |
|--------------------------|--|-----------|-------------|
| Ear Infections | | | |
| 1 | Acute bilateral ear wax | 32 | 53.33 |
| 2 | Otitis media and Otitis externa | 18 | 30.00 |
| 3 | Chronic supportive otitis media (CSOM) | 10 | 16.66 |
| Total | | 60 | 15.00 |
| Nasal infections | | | |
| 1 | Deviated nasal septum | 49 | 39.51 |
| 2 | Allergic rhinitis | 41 | 33.06 |
| 3 | Sinusitis | 22 | 17.74 |
| 4 | Epistaxis | 12 | 9.677 |
| Total | | 124 | 31.00 |
| Throat infections | | | |
| 1 | Acute and chronic tonsillitis | 104 | 48.14 |
| 2 | Chronic pharyngitis | 112 | 51.85 |
| Total | | 216 | 54.00 |

From the study findings, it is evident that 55.75% (n=223) of the patients presented with a history of illness below 12 months. 43.50% (n=174) had history from 1 to 4 years and 0.75% (n=3) reported with illness history of more than 4 years. The results are depicted in figure 3 below.

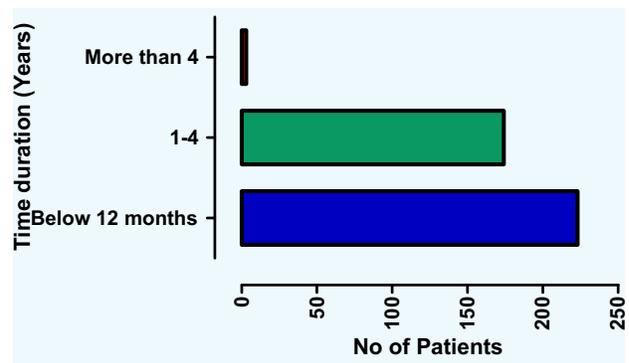


Figure 3. Illness Duration in Study Population

Discussion

The prevalence of ENT disorders vary among numerous communities and are dependent mainly on age and other environmental factors. In Pakistan, the incidence of ENT disorders is on the move, both in adults as well as in children. This study was conceded to evaluate the prevalence of ENT disorders reported to ENT OPD, Khalifa Gul Nawaz teaching hospital Bannu-KP. The study was based equally for male and female. Out of

total study population, 56% (n=224) were male while rest of the 44% (n=176) were female. 60% (n=240) of patients were matriculate and higher secondary level, 30% (n=120) were graduates while only 10% (n=40) were holding Masters and MS degrees. 53% (n=212) were belonging to socio-economically poor families while the rest of 47% (n=188) were from mediocre families. The prevalence of Ear infections was reported to be 15% (n=60), of Nose infection was 31% (n=124) and of throat infections was 54% (n=216). The most common ear problems were acute bilateral ear infection, Otitis media and CSOM. Nose problems included DNS, allergic rhinitis, Epistaxis and Sinusitis whereas throat problems included acute and chronic tonsillitis and chronic pharyngitis. It should be noted that the variation of our results from other researcher's work might be due to sample size difference. An Indian report revealed the incidence of ear wax in 7.9%, chronic OM in 4.7% and OM with effusion in 3.6% of study population out of 15718 school primary going children. The same study revealed the prevalence of acute otitis media in 0.65% and foreign bodies in 0.34% children.

The study that was conducted at Khyber medical college Peshawar Pakistan revealed the incidence of ear disorders in 47%, nasal disorders in 38% and laryngopharyngeal complications in 17% of study population.²⁶ The study was conceded on 21800 patients. The difference of our results is due to racial and environmental factors.

Another tertiary care study conceded in Peshawar-Pakistan revealed the incidence of ENT diseases in children as: Otitis media in 29.3%, pharyngitis in 30%, and nasal obstruction in 5.3%. The data revealed that ENT disorders are more common in children as compared to adults.²⁷

A report from Nepal suggested the higher incidence of ENT disorders in children having their background from low socio-economic joint families.²⁸

Conclusion

Among all study population, the most common infections were of throat origin followed by nose and ear infections. The severity of these infections was from acute to chronic having less than a year. The prevalence of the disease was found to be existed in lower income group. The possible reasons were found to be unhygienic conditions, un-health diet and involvement of parasites. It is needed to advocate the community about the ENT problems and their solution.

Conflict of Interest

None

Funding Source

None

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