

## AUDIT OF VARIOUS OTORHINOLARYNGOLOGICAL DISEASES IN SHANGLA VALLEY

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### ABSTRACT

**Objective:** To assess the prevalence of various ear, nose and throat diseases in Shangla valley.

**Study Design:** A descriptive cross-sectional study.

**Place and Duration of Study:** Study was carried out in shangla. Duration of study was 3 months, from Jun 2014 to Aug 2014.

**Material and Methods:** All the patients of any age group and both genders who reported with any ENT disorder and emergency were included in this study. Frequency and percentage of various ENT diseases among patients and emergency procedures performed were found.

**Results:** A total of 2725 patients were included. The most common ENT disorder encountered was rhinosinusitis which was seen in 14.2% cases, followed by ear wax (impacted cerumen) in 13.4% and pharyngitis in 12.5% cases. Allergic rhinitis was seen in 10.4% cases, epistaxis in 7.4% and chronic suppurative otitis media in 6.4% cases. Among the emergency ENT procedures performed, anterior nasal packing was the commonest (done in 55 cases) followed by stitching of lacerations and foreign body removal from ear and nose.

**Conclusion:** Ear, nose and throat diseases are very common in Shangla and their spectrum range from rhinosinusitis, impacted cerumen (ear wax) and pharyngitis to less common but potentially dangerous conditions like foreign body impaction in ear and nose.

**Keywords:** Chronic suppurative otitis media, Epistaxis, Otitis media, Otorhinolaryngology, Tonsillitis, Vertigo.

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### INTRODUCTION

Ear, nose, throat disorders constitute a diverse spectrum of conditions afflicting children and adults of both genders from time to time. These ENT diseases include infections, inflammatory diseases, tumors, trauma, vascular diseases, neurologic conditions etc. The frequencies of these entities vary from community to community and also depend upon variation of seasons. Similarly, frequencies of these diseases also differ in different age groups, ie children and adults. ENT disorders make a major chunk/proportion of any outpatient department (OPD) in hospitals, dispensaries or medical camps.

Otorhinolaryngologic disorders are important universal health problems which affect all age groups<sup>1</sup>. If not treated adequately, diseases

like chronic suppurative otitis media and acute otitis media can have dangerous outcome. These diseases gravely affect not only hearing but also language, cognition and school performance<sup>2</sup>. In the long run, conditions affecting hearing can cause life long handicap. The prevalence of disabling hearing loss among adults, adolescents and children is greatest in South Asia followed by Asia Pacific and Sub-Saharan Africa<sup>3</sup>. Foreign body impaction in ear, nose and throat are also very common and may even prove fatal if inhaled<sup>4</sup>.

### MATERIAL AND METHODS

The descriptive cross sectional study was carried out in Shangla, from June to August 2014. Total population of Shangla is around 4.5 lacs. During the three months' period from June to August 2014, many local civilians came with various health problems and got treatment from the medical officer at MI room. All the individuals of any age and gender who had ENT

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disorders were included in this descriptive study. Thus, the sample size comprised of all the individuals with ear, nose and throat illness and came to be 2725. The sampling technique was nonprobability convenient. The data was analyzed with the help of statistical package for social science (SPSS) 20. Frequencies and percentages of various ENT diseases and emergency procedures were found.

## RESULTS

Total 2725 patients were seen during three

wax, pharyngitis, allergic rhinitis, epistaxis, chronic suppurative otitis media, tonsillitis etc as shown in table-I. Similarly most common emergency procedure performed was anterior nasal packing, followed by stitching of lacerations etc as shown in table-II. There were many cases of epistaxis (201) but majority settled with first aid and conservative measures only 55 required anterior nasal packing and few even were referred to tertiary care hospital.

Among the foreign bodies of ear, there were beads, metal balls, broken pencil tips, pieces of

**Table-I: Frequency of various ENT diseases (N=2725).**

S No.	Diseases	Frequency	% age
1	Rhinosinusitis	387	14.2%
2	Wax	364	13.4%
3	Pharyngitis	341	12.5%
4	Allergic rhinitis	284	10.4%
5	Epistaxis	201	7.4%
6	CSOM	176	6.4%
7	Ac Tonsillitis	158	5.8%
8	ASOM	125	4.6%
9	Otitis externa	119	4.4%
10	Otitis media with effusion	92	3.4%
11	Adenoid Hypertrophy	83	3.1%
12	Ch Sinusitis	79	2.9%
13	Ch tonsillitis & pharyngitis	74	2.7%
14	Nasal polyps	58	2.1%
15	Presbycusis	55	2%
16	Verigo	36	1.3%
17	Boil nose	32	1.2%
18	Trauma face, head & neck	27	0.9%
19	Foreign Body ear	19	0.7%
20	Foreign Body nose	15	0.6%
	Total	2725	100%

months period from July to September 2014. There were 1565 males (57.4%) and 1160 (42.6%) females. Age range of patients was 2-71 years, mean  $26 \pm 17.25$ . Many emergency minor procedures were also done. Table-I shows various ENT diseases which were seen in the order of frequency. Similarly table-II shows the ENT procedures performed.

The most common ENT disorder encountered was rhinosinusitis followed by ear

rubber, insects, cotton wools, seeds, stones, folded papers etc. Similar foreign bodies were also seen in nose, which included seeds, stones, folded papers, beads, small toys and even a small battery. Foreign body nose has to be removed very carefully to avoid its accidental slipping into airways which can be life threatening/fatal<sup>5</sup>.

## DISCUSSION

The descriptive study was a result of an excellent opportunity to assess the pattern of

various ear, nose and throat problems which afflict the population. We have described the spectrum of Otorhinolaryngologic disorders and emergencies in Shangla (a far flung, deprived and under developed district of our country). Keeping in view the importance of ear, nose and throat diseases, amicable ENT services should be provided at Tehsil Headquarter Hospital level. Conditions like otitis media with effusion, adenoids hypertrophy, chronic suppurative otitis media, and congenital hearing loss should be timely intervened and treated to prevent or address any future/impending morbidity. The most common ENT disease seen was rhinosinusitis. Rhinosinusitis is inflammation of nasal and sinus mucosa caused by infections. It is

Pharyngitis is defined as inflammation of pharynx secondary to infection. In majority of cases it is viral in etiology. Pharyngitis caused by Group A beta Hemolytic *Streptococci* is potentially dangerous as they can cause severe complications like Rheumatic fever (carditis), glomerulonephritis etc<sup>10</sup>. The frequency of group-A beta Hemolytic Stroptococcal pharyngitis in children older than 5 years is around 37%<sup>10</sup>. That is why; it is of utmost importance to completely treat pharyngitis. The individuals of far flung and deprived areas are especially vulnerable to the complications mentioned above owing to lack of health care services, lack of access to such services, poverty, poor awareness and trends of consulting quacks<sup>7</sup> etc. Allergic rhinitis is a

**Table-II. Frequency of various Emergency procedures.**

S No.	ENT Emergency	Procedure	n (% age)
1	Epistaxis	Nasal packing	55 (45.1%)
2	Trauma Face, head & neck	Stitching	27 (22.1%)
3	Foreign body ear	FB removal	19 (15.6 %)
4	Foreign body nose	FB removal	15 (12.3%)
5	Fracture Nose	Digital Manipulation	6 (4.9%)
	Total		122 (100%)

a very common medical condition<sup>6</sup>. The mucosa of nose and sinuses is in continuity and closely related that is why rhinitis and sinusitis occur together mostly and named as such<sup>6</sup>. Rhinosinusitis was seen in 14.2% of all ENT cases. This frequency is almost similar to that of the study in Khwazakhela Swat<sup>7</sup>. Rhinosinusitis can adversely affect the quality of life and patients need urgent medical care. The second most common ENT presentation was ear wax (impacted cerumen). Impacted cerumen is prevalent in around 6% of world population and is a common cause of primary care consultation<sup>8</sup>. The main symptoms of impacted cerumen (wax) are ear blockage, ear ache and decreased hearing. Hearing is a very important sense in humans and even slight change in hearing forces the sufferer to seek concerned specialist advice. The frequency of ear wax (impacted cerumen) was 13.4% which is almost similar to our study in Khwazakhela, Swat i.e 12.7%<sup>7</sup>. But it is less than the frequency shown by Adegbi et al i.e 20.1%<sup>9</sup>.

common disease in population. It is of two types; seasonal allergic rhinitis and perennial allergic rhinitis. It is defined as symptoms of sneezing, nasal congestion, itching in nose and rhinorrhoea caused by Ig-E mediated allergic reaction against inhaled allergens and it also involves mucosal inflammation<sup>11</sup>. The frequency of allergic rhinitis is quite high, almost 40% in United States and Europe<sup>12</sup>. Majority of individuals suffering from allergic rhinitis also have asthma. The presence of allergic rhinitis significantly increases the probability of asthma i.e about 40% of patients of allergic rhinitis have or will have asthma as well. In the present study we have seen 10.4% patients reporting with allergic rhinitis.

Epistaxis is derived from Greek word and it means bleeding from nose. Epistaxis is a very common ENT emergency. It affects around 60% of population but only 6% require treatment<sup>13</sup>. The common causes of epistaxis include nasal trauma, local infection, nose picking, deviated

nasal septum, medications etc but in majority of cases it is idiopathic i.e. no cause is known. Most of the time epistaxis is self limiting but in severe or refractory cases it needs to be managed actively. The first aid to control epistaxis is to pinch nose for five to ten minutes. It compresses the bleeding vessel and arrests hemorrhage most of the time. In other refractory cases, measures including nasal packing, chemical cautery, electric cautery or ligation may be required. In the present study we have seen 7.4% cases of epistaxis. Majority settled with first aid medication. However we had to do nasal packing in 55 cases.

Chronic suppurative otitis media is defined as chronic inflammation of middle ear with permanent perforation in tympanic membrane and decreased hearing. It is of two types; tubotympanic CSOM (chronic suppurative otitis media) and atticointral CSOM (chronic suppurative otitis media). The atticointral type of CSOM is associated with many intracranial and extracranial complications which can be life threatening. The frequency of CSOM was 6.4% in our study. However according to research in Khwazakhela Swat, 12.86% of children and 6.63% of adults had chronic suppurative otitis media<sup>7</sup>.

Among the emergency procedures performed, anterior nasal packing was the most frequent of all. There were 55 cases of anterior nasal packing followed by cases of trauma face, head and neck which needed stitching. Cases of foreign body ear (19 cases) were more than cases of foreign body nose (15 cases). It is in accordance with the work of Mukhtar et al<sup>14</sup>. Children have an inquisitive nature, so they often put objects in nose, ear and may even ingest or inhale them. Foreign body of nose has to be removed very carefully to avoid its accidental slipping into airways which can be life threatening and even fatal<sup>5</sup>.

Almost every one in a community needs to consult otorhinolaryngologist every now and

then regarding diseases like rhinitis, epistaxis and above mentioned conditions. If not treated promptly, they can be of serious concern. Provision of ENT services at every Tehsil level is of utmost necessity through out our country. It can go a long way in decreasing the co morbidities associated with them.

## CONCLUSION

Ear, nose and throat diseases are very common in Shangla and their spectrum range from rhinosinusitis, impacted cerumen (ear wax) and pharyngitis to less common but potentially dangerous conditions like foreign body impaction in ear and nose.

## CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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