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Original Article

Prevalence of ENT Diseases in Medical College for Women and Hospital, Dhaka - Six Months Retrospective Study

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Abstract:

Background*: Ear, Nose, Throat (ENT) & Head Neck diseases are very common in our country. Of course, patterns of ENT diseases vary depending on geographical distribution.*

Materials & methods: *This retrospective study was carried out in ENT OPD in a tertiary hospital, Medical College for Women & Hospital (MCWH), Uttara, Dhaka, Bangladesh from July, 2015 to December, 2015. Total 3314 patients were selected for the study, males being 1582 & females, 1732. Cases were evaluated by local otolaryngologists by taking thorough history and clinical examination with proper and relevant investigations. Personal data included were age (1 month – 80 years) and sex. Information obtained was expressed in numbers and percentages with statistical analysis.*

Results: *Top 10 diseases were selected which includes Chronic Suppurative Otitis Media (CSOM) 18.14%, Chronic tonsillitis 15.67%, Acute otitis media (AOM) 9.90%, Otitis externa (OE) 8.18%, Deviated nasal septum (DNS) 7.79%, Otitis media with effusion (OME) 7.27%, Allergic rhinitis (AR) 6.40%, Wax 4.98%, Pharyngitis 4.29%, Sinusitis 2.90%. The study reveals that the most vulnerable age group was 0-18 years. 47.74% and 52.26% were male and female respectively, the ratio being 0.9:1 that is almost equal. No significant differences were found in ENT diseases between males and females. Regarding infections of specific organs, CSOM was the most common and highest in order in our context followed by Ch. Tonsillitis, AOM, OE, DNS, OME, AR, Wax, Pharyngitis and Sinusitis.*

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Conclusion: *This study was made with an attempt to contribute to some extent to the epidemiologic profile of the common ENT & Head Neck diseases. It would probably enable the concerned personnel to enrich their knowledge and skill so that they can deal with the diseases properly.*

Keywords: *ENT Diseases, Retrospective study.*

Introduction:

In South Asia, Bangladesh is a thickly-populated country.[1] Incidence of ENT diseases is very common in our country, though it varies depending on geographical distribution. Community people at large frequently suffer from ENT problems and medical consultations are usually not much required for their treatment, which is quite reasonable. But like other health issues, modern interventions might help combat ENT problems in the upper echelons of the society.[2] At the same time, because of the increased incidence of ENT diseases, attending ENT Specialists is very common in both the settings—rural and urban— along with many home remedies, which are practiced vigorously by our people.[3] Moreover, many ENT diseases are relatively mild and self-limiting without any need for medical intervention. However, it should be kept in mind that some apparently minor ENT symptoms such as tinnitus and unilateral hearing loss may give rise to the suspicion for acoustic neuroma.[4] Since early age and weak defence mechanism are so far inseparable, infants & young children suffer from significant morbidity from ENT diseases.[5] Other than only a few, large scale studies for estimation, prevalence and types of ENT issues are not much available in our country.[6]

This retrospective study was carried out on all patients visiting ENT OPD in a tertiary hospital, MCWH, Uttara, Dhaka, Bangladesh over a period of 6 months from JULY 2015 TO December 2015 to find out the pattern of ENT & Head Neck diseases.

Materials & Methods:

This study includes cases referred from Emergency, other specialty, general clinics & miscellaneous. Out of 3314 patients seen in ENT OPD during a period of six months, male patients were 1582 (47.74%), females being 1732(52.26%) & M: F ratio is almost equal (0.9 :1). Cases were evaluated & diagnosed by Otolaryngologists by taking thorough history & clinical examination with proper relevant investigations, both routine & specific as required. Personal data included were age & sex. Results were expressed in numbers & percentages with statistical analysis.

Results:

In this retrospective study from a period of 6 months from July, 2015 to December 2015, carried out in a tertiary hospital, MCWH, Uttara, Dhaka, Bangladesh, a total of 3314 patients were seen in ENT OPD out of which 1582 (47.74%) were males, 1732 (52.26%) were females & M:F ratio being almost equal. Age ranges from 1 month to 80 years. Personal data included were age & sex. Thorough history, clinical examination & investigations were checked in cases of admitted patients. Cases were evaluated & diagnosed by Otolaryngologists.

Table I :
10 common clinical conditions

Disease	Incidence
Chronic Otitis Media	18.14%
Chronic tonsillitis	15.67%
Acute Otitis Media	9.90%
Otitis Externa	8.18%
Deviated Nasal Septum	7.79%
Otitis Media with Effusion	7.27%
Allergic Rhinitis	6.40%
Wax	4.98%
Pharyngitis	4.29%
Sinusitis	2.90%

Table II

10 common clinical conditions according to age and sex

Clinical Conditions	Sex (%)		Age Group (%)					
	Male	Female	0-18	19-30	31-40	41-50	51-60	Above 60
Chronic Otitis Media	55.24	44.76	32.61	17.30	30.05	10.02	7.51	2.50
Chronic tonsillitis	42.39	57.61	41.23	28.52	15.13	9.08	4.54	1.50
Acute Otitis Media	45.73	54.27	53.66	24.39	11.41	7.68	2.20	0.66
Otitis Externa	41.70	58.30	42.44	27.31	13.62	12.10	1.51	3.03
Deviated Nasal Septum	51.55	48.45	11.63	50.78	15.04	18.80	1.88	1.88
Otitis Media with Effusion	52.28	47.72	17.84	32.78	29.63	14.81	2.47	2.47
Allergic Rhinitis	46.23	53.77	29.25	33.96	18.40	14.72	2.20	1.47
Wax	43.03	56.97	72.12	11.52	5.73	4.09	3.27	3.27
Pharyngitis	40.14	59.86	14.79	40.14	24.79	13.52	5.41	1.35
Sinusitis	40.63	59.38	30.21	47.92	13.13	6.56	1.10	1.09

Of the total 3314 patients, majority patients were seen by ENT Specialists & Medical Officers.

Discussion:

In our study, number of paediatric & adolescent group was 1216 (36.69%) whereas it was 13.7% shown in a study in Malaysia.[7] Another study[8] reveals that commonly attending patients are adolescents and young adults, which echoes our study. In our study, ear diseases top the list where wax is in the highest percentage in 0-18 years (72.12%) which is dissimilar to a study in Pakistan[9] where it is the second most common condition. Then comes acute otitis media (53.66%) which declines with age. Sore throat presentation varies with age and is again more in 0-18 years of age in our study, which resembles a study in New Zealand.[10] OM & Tonsillitis in children seems to be a sequelae of URTI in a study,[11] which echoes our study. While considering ENT diseases in adult patients above 18 years of age, otological conditions take the highest position. The most common entity in older patients above 60 years is Presbyacusis,[11] which is in accordance with our study. Another study[12] shows paediatric age group (5-14 years) is the commonest (65.7%) & among them, ear diseases are the most prevalent followed by nose (30.9%) & throat (25.1%) disorders. But our study indicates that ear diseases come first, then throat followed by nose. 19-30 years age group suffer mostly from DNS (50.78%), Sinusitis (47.92%), Pharyngitis (40.14%), OME (32.78%), Chronic Tonsillitis (28.52%), OE (27.31%), AOM (24.39%), AR (18.40%), COM (17.30%), Wax (11.52%) respectively. 31-40 years age group if considered, AR is seen to be the commonest condition followed by ear diseases, then throat & nose disorders. In 41-50 years of age, nasal disorders (DNS 18.80%) are more common. Then OME (14.81%), AR(14.72%). Pharyngitis (13.52%), OE(12.10%), COM(10.02%), Chr. Ts (9.08%), AOM(7.68%), Sinusitis(6.56%), Wax(4.09%). 51-60 years age group presents most commonly with ear diseases, then throat & nose. Most of the disease processes start declining except Presbyacusis in this group.

Of the top ten diseases, CSOM/COM occupies the largest group. Diseases of ear (COM) come up with the highest frequency,[6] which is similar to our study. We found similarity regarding ear diseases to top the list of ENT disorders followed by throat & nasal diseases,[1] A study shows the most common disease encountered was rhinosinusitis (14.2%), followed by impacted wax (13.4%) & pharyngitis (12.5%) & CSOM was in 6.4% cases, which contradicts our study[9].

Throughout the world, otitis media is the most concerned health topic.[13] WHO reports otitis media to be the prime cause of hearing loss in 42 million people (>3 years of age) worldwide.[14] Impact of hearing impairment is negative in young children, the World Health Report says, since it hampers development of speech, academic progress and social skills[15]. It causes immense sufferings both for the parents and child, leaving the patient a familial and social burden. Fortunately, early detection, treatment of the ENT diseases and rehabilitation can easily be achieved from school health services.[15]

Conditions like cholesteatoma, intra and extracranial complications may develop from CSOM, which is an inflammatory process of the middle ear & mastoid cavity. Developing or underdeveloped countries face this special health issue as it progresses insidiously causing irreversible damage.[15]

According to a study, [16] poor socioeconomic condition, illiteracy and ignorance lead to late presentation and resultant delayed diagnosis increasing the number of casualties going beyond the scope of treatment.

A study has revealed that otitis media is predominant in all age groups, which aggravates in the cases of hearing loss and co-morbidities.[17]

Next common group is Chronic tonsillitis (15.67%), males (42.39%) & females (57.61%) presenting with recurrent attacks of sore-throats or resulting from Acute tonsillitis. Mostly, URTI is the most common condition associated with tonsillitis & overcrowding especially in children residing in madrasahs & hostels. The most vulnerable age-group of this clinical entity is younger patients,[11] which is similar to our study. A study in Greece[8] shows Tonsillitis to be the topmost entity which, contradicts to our list.

Next disease entity is AOM (9.9%), females (54.27%) suffering more than the males (45.73%), vulnerable age group being 0-18 years (53.66%12). 19-30 years (24.39%) age group comes next followed by 31-40 years (11.41%). This shows a gradual declination of this disease entity with increasing age in our study. Main reason may be structural abnormality of Eustachian tube in children predisposing to recurrent upper respiratory tract infection, mostly viral leading to secondary infection.

Otitis externa is another entity in our study (8.18%) in which females (58.30%) are the sensitive ones, might be due to their ear-cleaning tendency & males being (41.70%). Otomycosis is frequently encountered because of increased humidity & also unawareness of the consequences of the use of cotton-bud.

Deviated nasal septum is another condition ((7.79%) in which males (51.55%) & females (48.45%) & common age group is 19-30 years (50.78%). In a study,[18] the more vulnerable age bracket in both males & females was found to be 16-25 years, but our study shows males to suffer more than the females in between 19-30 years. Most common causes are traumatic & familial & less commonly due to benign or malignant lesions of nose on the opposite side. Racial factors may contribute to some extent.

Next comes Otitis media with effusion (OME) which is (7.27%), more in males. The cause is Eustachian tube dysfunction after having cold attacks or barotrauma due to upper respiratory tract infection mostly. In a study in Malaysia, the percentage is 12.3 which contradicts to our study. Unilateral OME sometimes may be a cause of Nasopharyngeal carcinoma (NPC) in adults which is not common in our country. But Chinese males are more prone to NPC in Malaysia.[7]

Allergic Rhinitis (AR) is in the 6th position in our study but is the top most common disease in Malaysia (20.2%). In our study, females (53.77%) are more affected than males (46.23%), vulnerable age group being above 30 years. The most common cause in the perspective of our country seems to be dusty environment & air pollution which is very difficult to treat & may also lead to adult asthma. Factors like long term dog- keeping, parental smoking, early-life severe respiratory infection may cause harmful effect like adult asthma. Avoiding parental smoking, vaccination against lower airway proved beneficial to respiratory health. Thus, it is important to focus on early life environment regarding health issue like AR.[19]

Wax comes next which is about 4.98% in incidence in our center, most commonly in age group 0-18 years & in females (56.97%). Mostly patients present with blocked ear & earache, reason might be the use of cotton buds which pushes the wax inside causing it to be impacted in the inner external auditory canal.

About Pharyngitis (4.29%), females were 59.86% & males 40.14% in our study which contradicts a study where it is 12.5% in adults.[9] Age-group 19-30 years (40.14%) is mostly affected, then comes 31-40 years (24.79%) which again do not match a study showing 37% in 5-15 years age group & 5-15% in adults.[20]

Sinusitis is a common health problem in Bangladesh, more frequently affecting the younger people irrespective of sex. Though not life threatening, peaking in winter & rainy seasons, it reduces the quality of life. Headache from sinusitis often aggravates by tension. Escalating air pollution gives birth to high respiratory infection posing health threat in Bangladesh including sinusitis. Few hospitals in our country recently introduced Functional Endoscopic Sinus Surgery (FESS) as the treatment of choice for chronic sinusitis.[21] In our study, it is more prevalent in age group (19-30 years, 47.92%) which, closely resembles with that of another (21-40 years) with the contradiction of sex incidence wherein males predominate in the other study.[22] Then comes 0-18 years of age, gradually declining in 31-40 years and above in our study.

Another condition needs to be mentioned though it is not included in our top ten diseases is Presbyacusis or Age-related sensorineural hearing loss. Just asking about hearing loss can provide us with a reasonable estimate of the condition in senior citizens. In older population, hearing loss is now found to be the most frequent chronic condition.[23] We fail to understand that this entity ends up with utter frustration, dependency, social isolation and even hospital care. Age-related hearing loss seems to be a highly neglected issue in our country. Now, it's high time that alongside paediatric population, hearing loss in older population should also be addressed with due care. Prevalence data may help in planning hearing rehabilitation services along with hearing aid provision.

Conclusion:

Limitations of our study lie in the fact that our data were taken from one hospital institution. There is lack of evidence from primary care settings or large community-based surveys.

Most of the ENT & head – neck disorders can be managed at primary health care level.

This study might help the general practitioners for successful management of ENT problems & improve the quality of care provision in terms of proper referrals.

Our aim was to determine the pattern of diseases in a tertiary hospital & thereby enabling the associate personnel to manage the common diseases by enriching their skill & knowledge. It will also help in creating awareness among the people in case of preventable diseases.

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