

Epidemiological Profile And Parameters of Ent Diseases And Emergencies At Faamch Barpeta

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Abstract :

Background: ENT diseases are amongst most common causes for patient to report to hospital in both rural and urban setups. Since India is developing country with growing economy, its health system is still evolving. This study was done to assimilate the data on patients reporting to ENT OPD and emergency in past 2 years, so that the future treatment and trend of diseases could be studied and managed. It will help in further reconstruction of health care system of barpeta..

Objective: To study the epidemiological profile of otorhinolaryngology disorders in the patients attending OPD and emergency, Fakhruddin Ali Ahmed Medical College and Hospital at Barpeta.

Material & Method: This was a retrospective record based study was carried in the department of ENT. It included patients who had attended the OPD of ENT department of Faamch, barpeta between 1st apr 2014 to 31st march 2016.

Results: The results will be discussed in details with respect to aims and objective of the study and will be compared with earlier available studies till date.

Keywords: Chronic Suppurative Otitis Media, Epidemiology, emergency

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I. Introduction

ENT diseases are one of the most common causes of visit to health care professionals. Otorhinolaryngological disorders can affects any age groups of populations from infants to elderly. Management of otorhinolaryngological disorders need a proper set up along with trained professionals. Most of the ENT emergencies are specialised jobs which need special instruments and equipments which are required to tackle the crisis. [1]

Otorhinolaryngological problems in Barpeta and surrounding districts of lower Assam are common and one of the major causes of morbidity and even mortality. Barpeta district has an area of 3,245 square kilometres (1253 sq mi) [2] and comparatively equivalent to Russia's Iturup Island [3]. The total population of barpeta is 1,693,622 with a sex ratio of 951 females per 1000 males and a literacy rate of 65.03% [4]. Fakhruddin Ali Ahmed Medical College and Hospital was established at Joti Gao, Barpeta in the year 2011. It is the only tertiary care centre in the entire district and surrounding areas of nearby districts. Our institute covers a vast population of Barpeta and surrounding districts. No such epidemiological evaluation about the prevalence of otorhinolaryngological disorders in this area of lower Assam had been studied till now. The aim of this study is to define the epidemiologic profile and parameters of otolaryngological disorders which are prevalent here in order to define guidelines to deal with at various levels of health care delivery systems. The doctor patient ratio in India is 1:1800 [5] which may even higher in rural place. Due to gross shortage of doctors and facilities, usually patient faces many problems despite of massive effort from government to improve the quality of health care.

The burden of health care systems in Barpeta is more as it is one of the country's 250 most backward districts (out of 640) as in the year 2006 [6]. Peoples have to travel too long distances to avail proper treatments. The entire district is surrounded by mighty Brahmaputra with many of its tributaries and there are many areas called Char area (small river island) from where there are no proper transportation facilities. General populations are suffering due to these unfavourable conditions along with lack of proper guidelines of treating common otorhinolaryngological disorders at primary health care centres. Epidemiological data regarding common otolaryngological disorder will be helpful in guiding and planning after training primary health care

professionals regarding management of common disorders at primary level along with timely referral for the serious problems to higher centres.

II. Aims And Objectives

To study the epidemiological profile of otorhinolaryngology disorders in the patients attending OPD and emergency ,Fakhruddin Ali Ahmed Medical College and Hospital at Barpeta.

III. Materials And Methods

This retrospective study was carried out in the Department of ENT at Fakhruddin Ali Ahmed Medical College and Hospital at Barpeta.

-All the patients who attended or referred to ENT OPD and ENT related emergency in the emergency department from 1st april 2014 to 31st march 2016 are included in the study

-Patients records were obtained from MRD department.

-All the patients are categorised according to age, gender, socioeconomic status and clinical diagnosis.

-The classification of cases based on the main symptoms or clinical signs with which the patients presented to OPD and Emergency.

-Diagnosis was coded according to the International classification of Diseases (ICD-10).

IV. Results And Observations

Table -1 Distribution of patients

	Overall patients attending opd	ENT patients
Total number	379125	40747(10.75%)
Males	176091(46.44%)	22464(55.13%)
Females	203034(53.55%)	18283(46.87%)

In our study total number of patients attending OPD were 3,79,125. Amongst these 40,747 were of ENT patients which constitute 10.75%. Out of which 22464 were males 55.13% and 18283 were females 46.87% (Table 1). The ratio of male: female in this study was 1.17:1.

Table -2 Age and sex distribution

Age group	M	%	F	%	Total	%
0-10	3006	54.48	2512	45.52	5518	13.29
11-20	4393	64.20	2450	35.80	6843	16.48
21-30	4562	52.78	4083	47.22	8645	20.82
31-40	3526	53.15	3109	46.85	6635	15.98
41-50	2300	48.52	2442	51.48	4742	11.42
51-60	1722	45.54	2060	54.46	3782	9.11
61-70	1684	56.91	1276	43.09	2960	7.13
71-80	985	51.25	937	48.75	1922	4.63
80+	286	63.15	170	36.85	456	1.10
Total	22010	55.13	18737	46.87	40747	100

If we talk about age distribution, most common age group involved was 21-30, constituting 20.82% followed by age group 11-20 and age group 31-40. It was observed that male pattern predominantly involved age group 11-20 years and 80+, while female pattern involved in age group 51-60.

Disease profile-

1) Ear-

Table-3

Diagnosis	Male	%	Female	%	Total	%
Csom (Safe)	3852	63.31	2232	36.69	6084	24.33
Otitis Externa	2115	52.88	1884	47.12	3999	16.00
Otitis Media With Effusion	1286	34.30	2463	65.70	3749	14.99
Asom	1426	56.58	1094	43.42	2520	10.00
Csom Unsafe	1588	70.61	661	29.39	2249	9.24
Snhl	1755	70.22	744	29.78	2499	9.99
Ssnhl	880	83.80	170	16.20	1050	4.20
Impacted Wax	456	43.42	594	56.58	1050	4.20
Traumatic Perforation Of Ear Drum	125	16.68	624	83.32	749	2.99
Congenital Deafness	566	70.92	232	29.08	798	3.19
Miscellaneous	185	74.00	65	26.00	250	1.00

Total	14234	52.36	10764	43.06	24998	100
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*ssnhl-sudden sensorineural hearing loss

Most common cases were noted to be of CSOM (SAFE), which accounted for 6084 (24.33%) of the total OPD cases, with male predominance (63.31%) was noted in it. It was noticed that in Females most common diagnosis was otitis media with effusion 2463 (65.70%) while in Males it was chronic suppurative otitis media .Otitis externa was second most common cause of attending patients to OPD, 3999 (16%).

2)Nose & Pns-

table-4

Diagnosis	Males	%	Females	%	Total	%
Crs Without Polyp	345	23.51	1122	76.49	1467	36
Crs With Polyp	201	41.10	288	48.90	489	12
Allergic Rhinitis	211	43.10	278	46.86	489	.12
Dns	407	71.27	164	28.73	571	14.01
Septal Perforation	109	44.67	135	55.32	244	5.98
Epistaxis	345	62.72	205	37.27	550	13.49
Atrophic Rhinitis	25	29.41	60	70.58	85	2.08
Sino-Nasal Tumors	47	55.30	38	44.70	85	2.08
Acute Rhinosinusitis	22	45.83	26	54.17	48	1.17
Others	41	87.23	6	12.77	47	1.15
Total	1753	43.01	2322	56.99	4075	100

*Crs-chronic rhinosinusitiJ

It was noted that nasal complaints were least of all cause of attending patients to OPD 4075 (10%) out of which 1753 (43.01%) were males and 2322 (56.99%) were females. Amongst all sino-nasal diseases Chronic rhinosinusitis without nasal polyposis was most common being 345(23.51%) in males & 1122(76.49%) in females overall 1467 patients were there which accounted for 36%. Second commonest disease of nose found to be DNS 571 (14.01%) out of which 407 (71.27%) were males and 164 (28.73%) were females.

3)Throat-

Table -5

Diagnosis	Males	%	Females	%	Total	%
Chronic Tonsillitis	2011	46.54	1310	53.46	4321	36.69
Acute Tonsillitis	998	61.87	615	38.13	1613	13.70
Gerd/Chronic Pharyngitis	205	13.80	1280	86.20	1485	12.61
Malignancy	885	70.57	369	29.43	1254	10.64
Cervical Lymphadenopathy	749	65.58	393	34.42	1142	9.69
Thyroid Swelling	221	21.58	803	78.42	1024	8.69
Deep Neck Space Infections	605	62.75	359	37.25	964	8.18
Parotid Swelling	235	29.90	551	70.10	786	6.67
Cervical Spondylosis	121	25.70	350	74.30	471	3.99
Others	95	81.20	22	18.80	117	0.99
Total	1300	53.10	1148	46.89	2448	100

The complaints of throat were evaluated and it was noticed that most common symptom was tonsillar enlargement and disease was recurrent chronic tonsillitis 4321 (36.69%) out of which 2011 (46.54%) were males and 1310 (53.46%) were females. Cervical lymphadenopathy was seen in 1142 (9.69%) of patients, GERD was 1485 (12.61%), acute tonsillitis occurred in 1613 (13.70%) of patients, malignancy in 1254(10.64%). In 'Others' group had the various cases, which were encountered in very less in our set up which comprised of 117 (0.99%).

Disease Profile Of Emergency Patients-

Total patients attending emergency were 51210, among these ENT patients were 2190(4.27%).

1) Ear- Table-6

Diagnosis	Males	%	Females	%	Total	%
Otalgia	172	59.09	98	36.30	270	38.35
Ear Bleeding	145	58.00	105	42.00	250	35.51
Foreign Body Ear	65	63.70	45	40.91	110	15.62
Asom	74	33.78	49	66.22	123	10.51

Total	407	57.81	297	42.18	704	100
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Most common ear ailment in emergency setting was otalgia 270(38.35) followed by ear bleeding(35.51%).
2)Nose-

Table-7

Diagnosis	Males	%	Females	%	Total	%
Epistaxis	350	82.15	76	17.84	426	48.63
Nasal Foreign Body	65	46.43	75	53.57	140	15.98
Nasal Vestibulitis	122	65.94	63	34.06	185	21.11
Nasal Trauma Including Faciomaxilaary Region	99	79.20	26	20.80	125	14.26
Total	636	72.60	240	27.40	876	100

Leading cause of patients presenting with nasal emergency was epistaxis 426(48.63%), followed by nasal vestibulitis.

3)Throat-

Table-7

Diagnosis	Males	%	Females	%	Total	%
Acute Tonsillitis	182	61.69	113	38.31	295	49.61
Foreign Body Throat	51	68	24	32.00	75	12.5
Stridor	37	67.27	18	37.73	55	9.16
Membranous Tonsillitis	20	76.92	6	23.08	26	4.33
Cut Neck Injury	22	62.85	13	37.15	35	5.83
Dysphagia	41	64.02	23	35.94	64	10.66
Miscellaneous	23	46.00	27	54.00	50	8.33
Total	376	62.67	224	37.33	600	100

Most common emergency cause of patient presenting with throat complaint was acute tonsillitis i.e.295(49.61%),followed by foreign body throat.

V. Discussion

The current study shows that most of the patients were from age group 21-30 years, which collaborates with findings in other studies, as young age group is most common age group to seek medical advice in ENT field.[7,8] Male: Female ratio of study is 1.17:1 which could be due to social issues of female gender in this part of india.Result is consistent with similar study[9]. Barpeta region consists of Muslim community, so similar findings were noticed in our study. Although the distribution was similar to state census but statistics were different in our study with muslim being 80.25%, hindu 19,25% and others in 0.25%. The variation noticed in our study from general census could be due to regional variations. This study shows Ear diseases to be the most common in seeking medical advice especially in younger age group. Most common disease was CSOM (safe) 24.33%.WHO census shows Wax or impacted Cerumen to be the most common cause of reversible hearing loss in our country [10]. Although, our study has shown CSOM to be most common which is most common disease of ear in developing countries , which is further leading to a major burden on health care system and society [11-12].It may be due to people living in poor socioeconomic condition in this part of assam.As CSOM constitutes most common cause of preventable deafness,if it is early and actively diagnosed and managed ,a major portion of childhood deafness could be prevented.

In our study, chronic rhinosinusitis without nasal polyposis was most common disease of nose while in other studies it was noted that allergic rhinitis is most upcoming disease [8]. Due to increase in pollution allergic rhinitis and its comorbidities are on rising trend but chronic rhinosinusitis was major diseases in this region, may be due to rural background. Septal perforation was also noted to be significant portion (5.98%) of nasal disease which is attributed to iatrogenic quack treatment in this region. Swelling in the throat was a leading cause of attending patients to hospital in which chronic hypertrophic tonsillitis was leading disease.It was more common in younger age group, may be due to increased concern of patients about throat swelling. Malignancy alsoconstitutes significant portion of throat disease(10.64%).Notable sites were oral cavity, oropharynx, hypopharynx and oesophagous. This may be due to increased consumption of tobacco,betel nut chewing, alcohol intake and smoking with poor oral hygiene . It's a well known fact that infectious pathology in disease is common in developing countries due to inadequate resources, improper treatment, incomplete investigations, improper follow-up, nutritional deficiencies and overburdened health care system. Due to above reasons infectious diseases are still leading cause of morbidity and even mortality in developing countries.

In our present study, ENT disease also constitutes significant portion of emergency cases(4.27%).Common causes of ENT emergencies were otalgia, foreign body, epistaxis, ENT & head & neck trauma,which is consistent with other study. There is an argument in the literature regarding the real need for an ENT emergency care as a non-referenced unit, working as a walk-in clinic. Nevertheless, our specialty has an essential role to play in common disorders in different age ranges, such as severe epistaxis and aerodigestive

foreign bodies, among other potentially lethal disorders[14,15,16,17]. In recent years, there has been an increase in the number of patients seen in emergency services, and associated to this phenomenon, amongst other factors, there is the difficulty of access to medical specialties, long waiting queues and misinformation regarding the healthcare system[14,15]. The ENT emergency room plays a key role in the care of life-threatening conditions such as severe epistaxis, acute respiratory obstruction, neck abscess, cut neck injury, complications of middle ear infections and acute otitis externa, among others. These are situations requiring immediate evaluation and management by an ENT surgeon, which can justify the essentiality of the specialist in emergency rooms in high complexity hospitals.

VI. Conclusion

From the data compiled in this study common ENT complaints should be evaluated for their cause and available treatment to reduce the burden on tertiary health care centres. The health workers in the field as well as at primary health care centres should be trained to deal with basic diseases and rehabilitation so that the ENT specialist could deal better health care with surgical management as the manpower in ENT department in our institute is less compared to patient load.

However, it is important to stress that as an implication of our findings, an ENT emergency room, working as a referral center, may reduce the number of non-urgency/emergency cases. With proper training of man power at primary health care level, many ENT emergency can be tackled, which will reduce the burden on medical college. Example of such emergencies are ENT foreign body, minor epistaxis, sudden sensorineural hearing loss. All these cases if timely diagnosed and managed can reduce irreversible morbidity associated with these conditions.

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