

Original Research Article

Clinicoepidemiological profile of ear, nose, throat patients in outpatient clinic of tertiary health care facility in Punjab

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ABSTRACT

Background: This study evaluated the profile of ailments in patients presenting to outpatient clinic of tertiary care hospital of North India that caters to ENT diseases in population of Punjab, Haryana, Himachal Pradesh and Jammu and Kashmir.

Methods: A retrospective study was undertaken by analysing the medical records of patients managed at the department of otorhinolaryngology and head and neck surgery at the tertiary care hospital, Punjab from Jan 2018 to Dec 2018 and all essential data was collected.

Results: Total no. of patients presenting to the ENT OPD during the period of assesment were 32,475. 49.30% were males and 50.70 % were females, respectively. 29.70% were children below 15 years. The number of patients presenting per month were 2706, with maximum no. of patients presenting in the month of August to November. Patients with ear diseases were 9280 (28.57%), Nose diseases were 11963 (36.83%), and throat diseases were 11232 (34.58%).

Conclusions: This study showed that awareness of ENT ailments and visits for specialised treatment is on the rise rather than primary level treatment at local or general medicine or family physician level.

Keywords: Diagnostic nasal endoscopies, Examination under microscope, Flexible fiberoptic laryngoscopies, Neuro-otology lab

INTRODUCTION

From the time of Alma Ata declaration to the achievement of "Millennium development goals", lot of planning, effort and public expenditure has been devoted to improve the health of the people both in rural and urban areas in India.¹ In steps to achieving health for all, constant efforts are required to assess the disease patterns prevalent in population so that necessary amendments are made to reduce the disease burden and provide better health care services.

Significant progress has been made in improving health services in both rural and urban sectors in India. However, the morbidity pattern still remains under grey shadow. Among various lacunae, lack of adequate data on disease prevalence and profile remains one of the important factor associated with disease burden.

ENT diseases ranging from problems associated with decreased hearing, nasal obstruction, allergic symptoms to problems associated with throat remains one of the common ailments for patients visiting the health care

professionals. In this regard, a study was conducted to determine the pattern of ENT ailments in patients visiting the OPD in tertiary care hospital catering services to population of Punjab, Haryana, Himachal Pradesh and Jammu region.

The objective of the study was to study the clinico-epidemiological profile of otorhinolaryngology disorders in the patients attending OPD at Dayanand Medical College and Hospital, Ludhiana.

METHODS

A retrospective study was carried out in the Department of ENT at Dayanand Medical College and Hospital, Ludhiana in Punjab.

Inclusion criteria

All the patients who attended or referred to ENT OPD from 1st Jan 2018 to 31st Dec 2018.

Patients records were obtained from the medical records department.

All the patients were categorised according to age, gender, and clinical diagnosis.

The classification of cases based on the main symptoms or clinical signs with which the patients presented to outpatient clinic.

Relevant data collected from the endoscopy lab in ENT OPD where examination under microscope and audiological assessment in audiology and neuro-otology lab for patients with ear ailments, diagnostic nasal endoscopy for patients with nasal symptoms and flexible fiberoptic laryngoscopy and speech assesment for patients requiring throat evaluation were done respectively.

All statistical analysis was performed using Microsoft Excel and Statistical Package of Social Sciences (SPSS) version 17 for Microsoft Windows (SPSS Inc. Released 2008. SPSS Statistic for windows, version 17.0, Chicago).

RESULTS

During this period, 32,475 patients presented to the OPD in department of otorhinolaryngology and head and neck surgery at Dayanand medical college and hospital Ludhiana, for treatment of their ailments. 49.30% were males and 50.70 % were females, respectively (Table 1). Out of them, 29.70% were children below 15 years and 70.30% accounted for patients above 15 years of age (Table 2).

Most patients presented with ear complaints, accounting for 46.56% of the cases followed by patients presenting

with nasal complaints noted in 32% of all the cases and throat symptoms present in 21% of the cases (Table 3).

Table 1: Distribution of patients based on gender.

Distribution of patients	N (%)
Males	14563 (49.30)
Females	17912 (50.70)
Total	32475 (100)

Table 2: Age distribution of patients.

Distribution of patients	N (%)
<15 years of age	9645 (29.70)
>15years of age	22830 (70.30)
Total	32475 (100)

Table 3: Distribution of patients based on clinical profile.

Type of ailment	N (%)
Ear ailments	15122 (46.56)
Nose ailments	10396 (32.01)
Throat ailments	6957 (21)
Total patients	32475 (100)

Out of total patients presenting to ENT OPD, 3701 (11.39) patients required further evaluation in endoscopy lab for detailed examination in the form of Diagnostic nasal endoscopy, Examination under microscope and Flexible fiber optic laryngoscopy for nose, ear and throat examination respectively. Diagnostic nasal endoscopy was done in 1149 patients, Examination under microscope was done in 572 patients and Flexible fiberoptic laryngoscopy was done in 1980 patients (Table 4).

Table 4: Distribution of patients based on type of evaluation.

Type of evaluation	No. of patients
Examination under microscope	572
Diagnostic nasal endoscopy	1149
Flexible fiberoptic laryngoscopy	1980
Pure tone audiometry	4751
Impedence audiometry	1869
Otoacoustic emission and brainstem evoked response audiometry	1713
Speech therapy	1740
Electronystagmography	149
Facial nerve stimulation testing	98
Total	14021

DISCUSSION

This retrospective analysis reveals the awareness of the Punjab population with respect to ailments concerning the

speciality of otorhinolaryngology and head and neck surgery. Over a period of one year, 32475 patients attended the ear, nose, throat, head and neck surgery outpatient clinic of the institution. In our study, the patients of either gender were almost equivalent in number i.e. 49.30% males and 50.70% females, thereby emphasising the fact that there is no gender discrimination in getting treatment in today's era. In a study by Fasnula et al 2013, five thousand and one new patients were managed for ear, nose and throat diseases at the Department of Otorhinolaryngology, University College Hospital, Ibadan, Nigeria. There were 2641 (52.8) males and 2360 (47.2) females with a sex ratio of 1:1 (M: F).¹ In another study by B.K. Das et al 2017, out of 40,747 ENT patients, 22464 were males 55.13% and 18283 were females 46.87%. The ratio of male: female in this study was 1.17:1.

With rising awareness among population regarding disease and need for early management to prevent complications, it was observed that 46.56% patients presented for otological ailments followed by rhinologic seen in 32.01% and laryngeal ailments in 21% cases. The hearing disability compels more individuals to visit ENT clinics as can be seen from the study statistics. The higher incidence of otologic problems is most likely attributed to persistent habit of ear picking leading to undue traumatic bleeds, otitis externa, otomycosis or even traumatic ear drum perforations. Similarly neglected childhood adenoiditis with consequent safe or unsafe ear pathologies.

In a similar study by Ayotunde et al (2013), 58% of the patients presented with ear ailments with patients presenting with rhinologic complaints accounting for 21% of the cases.¹ In another study by Furtado PL (2011), 15,309 patients presented with otologic complaints (62.27); 4,561 with rhinologic complaints (18.55); 4,203 with pharyngolaryngostomatologic complaints (17.09); and 510 head & neck surgery cases (2.07).³

In a study by Khanam et al (2017), diseases of ear (39.75) were most common ENT problem among the study population followed by tonsillitis (15.34), rhinitis (6.97), enlarged adenoids (6.51) and epistaxis (4.65).⁴

In another study by Kishore Kumar et al (2017), the most common disease reported was CSOM in 31 (15.5) patients followed by otitis externa 25 (12.5), pharyngitis 21 (10.5), URTI patients 20 (10.0).⁵

The common cases for which antimicrobials prescribed were infections like pharyngitis, acute suppurative otitis media (ASOM), chronic suppurative otitis media (CSOM), tonsillitis, laryngitis reported in the study by Ramachandra K et al.⁶

Antibiotics are commonly prescribed for common cold, laryngitis, pharyngitis/tonsillitis, acute rhinitis, acute rhinosinusitis and acute otitis media in adults and children in primary and tertiary care.^{7,8}

It was observed that with counselling and motivation to undergo specialised examinations, 43.17% of patients underwent evaluation in endoscopy, audiology and neurotology lab. The no. of patients subjected to diagnostic nasal endoscopy were 1149, for examination under microscope were 572 and 1980% of patients were subjected to flexible fiberoptic laryngoscopy.

Patients who underwent evaluation in audiology lab were 10,073. Out of them, 4751 were assessed for hearing with pure tone audiometry, 1713 with otoacoustic emission and brainstem evoked response audiometry and 1740 patients were evaluated for speech and were subjected to speech therapy. The data collected from neurotology lab showed that 149 of patients underwent ENG, 98 for facial nerve stimulation testing.

In our study it was observed that willingness for diagnostic procedures was mostly for laryngeal i.e. 1980 examination with flexible fiber optic laryngoscopy or 70 degree hopkins endoscopy. It has been attributed to laryngeal cancerophobia being the primary reason in patients presenting with throat complaints.

Detailed evaluation of pattern of diseases among patients presenting to ENT OPD helps in identifying the prevalence of common diseases which would prove to be relevant and beneficial to the development of medical ENT curriculum in the region of Punjab and nearby states seeking medical facilities from this tertiary care hospital and subsequent medical practice.

CONCLUSION

The present study on patients presenting to ENT OPD in a tertiary care hospital has shown patterns of diseases common in the region of Punjab, Haryana, Himachal Pradesh and Jammu Region. The analysis helps in defining the content and extent of medical curriculum in otorhinolaryngology, thereby guiding and enriching the medical residents in the pursuit of relevant knowledge and skill in managing the relevant common ENT ailments. The study also helps in assessing the rising trend and awareness among patients willingness as well as examining doctors for preferring endoscopic diagnostic procedures for ear, nose and throat examination, thereby helping in early diagnosis and management of ENT ailments.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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