

# Pattern of Otorhinolaryngology Head and Neck Diseases in Outpatient Clinic of a Malaysian hospital

T Sing

## Citation

T Sing. *Pattern of Otorhinolaryngology Head and Neck Diseases in Outpatient Clinic of a Malaysian hospital*. The Internet Journal of Head and Neck Surgery. 2006 Volume 2 Number 1.

## Abstract

Pattern of otorhinolaryngology head and neck diseases in Outpatient Clinic ( ENT OPD Clinic) varies depending on the countries to large extent. A retrospective study was done on all the patients seen in the ENT OPD Clinic of Sarawak General Hospital from July 2003 to June 2004. There were 8118 patients, including 974 new patients (12%) & 1112 paediatric cases (13.7%). The male to female ratio is 1: 1.3. The age ranges from one-month-old to 92 years old, with a male mean of 38 (SD 31.6) and female mean of 41 (SD 33.4). The new cases were referred from Hospital Accident & Emergency Department (15.3%), other Specialty Clinics (22.0%), peripheral general clinics, called Polyclinics locally (41.7%), follow-up after treatment in In-Patient wards (6.6%), other public hospitals ( 7.0%), private clinics (2.3%), and miscellaneous ( 5.1%). The top 5 most common groups of ENT diseases are rhinitis (20.2%), chronic otitis media (12.3%), nasopharyngealcarcinoma (NPC) (10.5%), tonsillitis (8.1%) and nasal polyposis (5.2%). In these 5 groups, majority of the diseases were allergic rhinitis, central or large subtotal perforations of eardrum, recurrent or chronic tonsillitis (mainly in children) and ethmoid polyps. The incidence of NPC is relatively high in male and in ethnic groups of Bidayuh and Chinese and of the pathology WHO Types II & III. The findings help defining the content and extent of medical curriculum in otorhinolaryngology, thereby enriching the local medical graduates in their pursuit of relevant knowledge and skill in managing the relatively common and prevailing ENT diseases locally.

## INTRODUCTION

Pattern of otorhinolaryngology head and neck diseases in Outpatient Clinic ( ENT OPD Clinic) varies depending on the countries to large extent. Knowing the pattern of such diseases in Malaysia would help define the content and extent of medical curriculum involving otorhinolaryngology head and neck diseases. This is relevant as the local medical graduates would then have relatively enriched knowledge and skill in managing the relatively common and prevailing diseases. In this regard, a study of the otorhinolaryngology head and neck diseases in Outpatient Clinic in Sarawak General Hospital was carried out to determine the pattern of otorhinolaryngology head and neck diseases in Sarawak, Malaysia.

## METHODS

This is a retrospective study done on all the patients seen in the ENT OPD Clinic of Sarawak General Hospital, which is the only major referral center for the State of Sarawak , Malaysia. The study period was from July 2003 to June 2004. All the patients' clinical notes and their attendance sheets were checked with respect to their personal data including age, sex and ethnic or race groups. Their diagnoses

and relevant investigations to confirm the diagnoses were checked and the results of this study analyzed statistically, using SPSS where relevant.

## RESULTS & DISCUSSION

In the 12 months of the study period July 2003 to June 2004 , there were 8118 patients seen in the ENT OPD Clinic and it averaged 676 per month. Of the total of 8118 patients were new patients (about 12%) and 1112 (13.7%) paediatric cases. The male to female ratio is 1: 1.3. The age ranges from one-month-old neonate to elderly of 92 years old, with a male mean of 38 (SD 31.6) and female mean of 41 (SD 33.4).

On the average, 12.5 % of the patients seen in each clinic session were new cases. These new cases were referred from Hospital Accident & Emergency Department (15.3%), other Specialty clinics (22.0%), peripheral general clinics, called Polyclinics locally (41.7%), follow-up after treatment in In-Patient wards (6.6%), other public hospitals

(7.0%), private clinics (2.3%), and miscellaneous ( 5.1%). In the ENT OPD Clinic, majority (95%) of the cases were initially seen by ENT specialists and then on follow-up by both the Specialists & Medical Officers with gradually more

patients seen by the Medical Officers as the patients' condition becoming stabilized.

Table 1 shows the types of clinical conditions in term of their diagnoses and percentage incidences ( number of patients with the conditions out of the total of 8118). The top 5 most common groups of ENT diseases are rhinitis (20.2%), chronic otitis media (12.3%), nasopharyngealcarcinoma(NPC) (10.5%), tonsillitis (8.1%) and nasal polyposis (5.2%). These figures include both new and follow-up patients.

The rhinitis group consists of allergic rhinitis (85%), vasomotor rhinitis (10%), mixed allergic and vasomotor rhinitis and nonspecific rhinitis (5%). Commonest allergens are of the inhalant type, mainly dust and pollens, with slight increase in patient attendance in fruit flowering seasons in June & July of each year.

The second most common group, the chronic otitis media, is represented by 2 main types, the tubotympanic diseases ( 80%) where mainly central or large subtotal perforations of eardrum were noted, and attic-antral diseases (8%) where attic perforation and cholesteatoma noted. The remaining 12% include serous otitis media and atelectatic otitis media.. The serous otitis media was noted mainly in children (60%) and the remaining 40% in adult patients. In adult, serous otitis media is noted in patients with nasopharyngealcarcinoma (30%) before, during and after treatment. The other 70% were from patients with chronic rhinitis, rhinosinusitis and upper respiratory tract infection.

The third most common group is NPC, with the majority of patients being male(69%) and local ethnic group, Bidayu (61%), followed by Chinese(32%). The NPC types are WHO types II (43%) & III ( 48%).

Tonsillitis group comes after NPC group, with majority being recurrent or chronic tonsillitis (87%), and in paediatric ages (78%).

Nasal polyposis is the 5<sup>th</sup> most common group and these consist of mainly ethmoid polyps(72%), antrochoanal polyp ( 11%) and polypoid middle meatal area(8%).

Table 2 shows the percentage incidences, in age group, sex and race or ethnic, of the 5 most common disease groups mentioned above. It is noted that majority of the adults have rhinitis, chronic otitis media, NPC and nasal polyposis whereas majority of the children have tonsillitis

In the sex incidences, majority of the males have NPC and nasal polyposis.

In the race or ethnic incidence, Bidayuh tops in NPC, nasal polyposis and tonsillitis, whereas Malay tops in rhinitis and chronic otitis media.

In the literature search on the available journals and books, there is one book titled “ A Review of Diseases in Malaysia” by Dr Lim Kean Ghee <sup>1</sup>, which mentioned some ENT diseases known of some prevalence in Malaysia in general. Descriptive epidemiology in NPC in Peninsular Malaysia ( West Malaysia) but not East Malaysian State of Sarawak <sup>2</sup> was noted but it had no records of NPC incidence in Bidayuh, as the ethnic group of Bidayuh reside mainly in Sarawak. This incidence of NPC in Sarawak was however mentioned briefly in overview of cancer in Malaysia by Lim <sup>3</sup> and was also noted to be high by Devi <sup>4</sup> in consistent with this study.

Patterns of ENT diseases had been studied and reported in other countries, in tertiary hospital unit in Greece <sup>5</sup>, in the community in Scotland <sup>6</sup>, in eye & ear hospital in Australia <sup>7</sup>, in hospital emergency department in Spain <sup>8</sup> and France <sup>9</sup>. And ENT diseases had all been reported in different patterns from the ones found in this study. It is therefore conceivable that a local study with the findings found and discussed above would prove to be relevant and beneficial to the development of medical ENT curriculum in the local university and subsequent medical practice.

**Figure 1**

Table 1: The types of clinical conditions in term of their diagnoses and percentage incidences

Clinical conditions	Percentage incidence
Rhinitis	20.2
Chronic otitis media	12.3
NPC	10.5
Tonsillitis	8.1
Nasal polyposis	5.2
Sinusitis	4.7
Otitis externa	3.6
Parotid tumours	3.3
BPPV	3.2
Lymphadenopathy(non-NPC	3.1
Serous otitis media	2.7
Laryngitis	2.2
Pharyngitis	1.8
Pharyngeal tunours	1.7
Goitre	1.6
Oral tumours	1.5
Nasal sinus tunours	1.5
Neuralgia/TMJ syndrome	1.3
Neck infections	1.2
Foreign bodies	1.1
ENT trauma	1.1
Miscellaneous	8.1

**Figure 2**

Table 2: The percentage incidences, in sex, age group and race or ethnic, of the 5 most common disease groups

Percentage incidence	Fe-		Pediatric cases	Adult cases	Malay	Chinese	Bidayuh	Iban	Others
	Male	male							
Rhinitis	43	57	17	83	33	25	23	15	4
Chronic otitis media	48	52	15	85	44	31	10	11	4
NPC	75	25	14	86	18	22	39	11	5
Tonsillitis	52	48	58	42	25	14	38	20	3
Nasal polyposis	61	39	11	89	19	21	42	17	1

**SUMMARY**

This study on ENT OPD patients in the local hospital has shown patterns of ENT diseases common locally and some diseases not of same prevalence as other countries. Many locally common ENT disease have been identified. The findings help defining the content and extent of medical curriculum in otorhinolaryngology, thereby enriching the local medical graduates in their pursuit of relevant knowledge and skill in managing the relatively common and prevailing ENT diseases in Malaysia.

**ACKNOWLEDGEMENT**

The author would like to express very sincere thanks to the Director of Health Sarawak for the permission of access to the clinical records and the patients and staff.

**References**

1. Lim Kean Ghee. A Review of Diseases in Malaysia. 2001
2. Prasad U, Rampal L Descriptive epidemiology of nasopharyngeal carcinoma in Pennisular Malaysia . Cancer Causes and Control, 1992; 3:179-82
3. Lim GCC. Overview of Cancer in Malaysia Jpn J Lin Oncology, 2002; 32 (Supp)S37-S42))
4. Devi BC, Pisani P, Tang TS, Parkin DM. High incidence of nasopharyngeal carcinoma in native people of Sarawak, Borneo Island. Cancer Epidemiol Biomarkers Prev 2004 Mar;13(3):482-6.
5. Symvoulakis E, Klinis S, Alegakis A, Kyrmizakis D, et al. Epidemiologic profile of otorhinolaryngological head and neck disorders in a tertiary hospital unit in Greece: a challenge to general practitioners? BMC Ear Nose Throat Disorfers 2006,6:12
6. Hannaford PC,Simpson JA,Bisset AF, Davis A, Mckerrow W,Mills R. The prevalence of ear nose and throat problems in the community:results from a national cross-sectional postal survey in Scotland. Family Practice 2005; 22(3): 227-233
7. O'Driscoll o, Donnelly MJ, McShane DP, Burns H. An audit of the ENT casualty service at the Royal Victorian Eye & Ear Hospital. Ir J Med Sci 1993. 162(11): 462-465
8. Pin RV, Rejas UE, Keituqwa YT, Alcaraz FM, et al. Descriptive study of 21804 ENT emergencies in a third level hospital. An Otorhinolaryngollbero Am 2003; 30(3): 237-245
9. Timsit CA, Bouchene B, Olfatpour PH, Herman p, Tran Ba Huy. Epidemiology and clinical findings in 20563 patietns attending the Lariboisiere Hospital ENT adult emergency clinic. Annals D'otolaryngologie Et De Chirurgie Cervico-Faciale; 2001; 118 (4): 215-222

**Author Information**

**Tiong T. Sing, MBBS (Melb), BMedSc (Melb), FRACS**

Associate Professor, Department of Surgery, Faculty Medicine & Health Sciences, University Malaysia Sarawak