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Evaluation of Common Ear, Nose and Throat Diseases in Rivers State, Nigeria

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Abstract

Introduction: Otorhinolaryngological diseases are varied in nature. They can be congenital or acquired, infective, inflammatory or allergic, benign or malignant. This study evaluates the common otorhinolaryngological diseases as seen in the University of Port Harcourt Teaching Hospital, from January 2012, to December 2016.

Materials and Methods: Medical records of patients seen in the ENT clinic of the University of Port Harcourt Teaching Hospital over a 5 year period (January 2012 to December 2016) were retrieved and reviewed for relevant data including age, sex, diagnosis and patient category (new or old patient).

Results: A total of 21,979 clinic visits were recorded over the study period and 4936 (22.5%) of these were new patients with a slight male preponderance. Patients' age ranged from 1week to 89 years with children (0 to 17 years) making up 39.6%, while adults (18 years to 89 years) made up 60.4% of all new patients seen. Ear diseases were the commonest found in this study (32.5%), followed by throat diseases (31.6%), nasal diseases (28.2%), and head and neck tumors (7.7%). The commonest ENT diseases found in the pediatric age group were obstructive adenoid and tonsils in (23.1%), rhinitis (18.4%) and chronic suppurative otitis media (15.9%) while the commonest ENT diseases found in the adult population were rhinosinusitis (21.9%), hearing loss (19.9%) and pharyngitis (18.3%).

Conclusion: This study found ear diseases to be the most prevalent in our ENT clinic. Obstructive adenoid and tonsils was found to be the commonest ENT disorder among the pediatric age group while rhinosinusitis was found to be the commonest disorder in the adult population.

Keywords: Pattern, Ear nose and throat diseases; Port Harcourt; Teaching hospital

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Introduction

Otorhinolaryngological diseases are varied in nature. They can be congenital or acquired, infective, inflammatory or allergic, benign or malignant. Diseases of the ear, nose and throat vary with the environment in which individuals live in, usually in line with the form of air pollution, chemicals or adverse weather conditions they are exposed to [1]. At the same time, one's susceptibility to infections or diseases depends not just on the environment, but on individual genetic predisposition to certain diseases, and the presence or absence of co-morbidities [2].

The University of Port Harcourt Teaching Hospital (UPTH) is a tertiary healthcare facility in the South-South region of Nigeria that serves the triple function of medical training, research and service delivery and also receives referrals from other states within the South-South region of the country.

This study evaluates the pattern of otorhinolaryngological diseases as seen in the out-patients Ear, Nose and Throat clinic of University of Port Harcourt Teaching Hospital (UPTH), from January 2012, to December 2016, with the aim of highlighting the commonest ENT diseases seen in our clinic within this study period.

Materials and Methods

This was a descriptive retrospective study of patients seen in the ENT clinic of the University of Port Harcourt Teaching Hospital over a 5 year period (January 2012 to December 2016). Patient's medical records were retrieved from the out-patient clinic registers and medical records department.

Table 1: Gender distribution of new patients.

Sex	Number (%)
Male	2532 (51.3%)
Female	2404 (48.7%)
Total	4936 (100%)

Table 2: Gender distribution of paediatric and adult patient.

	0-17 Years	18-89 Years	Total
Male	1140 (45.0%)	1392 (55.0%)	2532 (100%)
Female	815 (34%)	1589 (66%)	2404 (100%)
Total	1955 (39.6%)	2981 (60.4%)	4936 (100%)

Table 3: Distribution of the 3 commonest ENT diseases in 0-17years.

Disease	Male	Female	Total
Obstructive Adenoids & tonsils	277 (61.4%)	174 (38.6%)	100%
Rhinitis	189 (52.5%)	171 (47.5%)	100%
CSOM	167 (53.7%)	144 (46.3%)	100%

Medical records were reviewed for relevant data including age, sex, diagnosis and patient category (new or old patient). Results were analyzed using simple descriptive statistics.

Results

A total of 21,979 clinic visits were recorded within the study period, among which 4,936 (22.5%) new patients were seen (Table 1). Indicates an average of 82 new patients per month and 987 new patients per year. Out of the 4936 new patients seen, 51.3% (2,532) were males, and 48.7% (2,404) were females, giving a Male:Female ratio of 1.05:1.

Patients' age ranged from 1week to 89 years with children (0 years to 17 years) making up 39.6% (1955), while adults (18 years to 89 years) made up 60.4% (2,981) of all new patient's seen (Table 2).

The 3 commonest ENT diseases found in the pediatric age group were obstructive adenoid and tonsils in 451 patients (23.1%), with mean age of occurrence of 3years, followed by rhinitis in 360 patients (18.4%) and chronic suppurative otitis media in 311 patients (15.9%) (Table 3).

The commonest ENT disease in the Adult population was rhinosinusitis in 653 patients (21.9%) with mean age of occurrence as 32 years, followed by hearing loss in 593 patients (19.9%) and pharyngitis in 546 patients (18.3%) (Table 4).

Ear diseases were the commonest found in this study 1,604 (32.5%), followed by throat diseases 1,560 (31.6%), nasal diseases 1,392 (28.2%), and head and neck tumors 380 (7.7%) (Table 5). Others include patients referred for speech therapy, temporomandibular joint disorders, and referrals for indirect laryngoscopy and medical report.

Other patients seen in our clinic within this study period who were not included in our analysis were patients referred for speech therapy, temporomandibular joint disorders, referrals for indirect laryngoscopy and medical report.

Table 4: Distribution of the three commonest ENT diseases in Adult Population.

Disease	Male	Female	Total
Rhinosinusitis	297 (45.5%)	356 (54.5%)	653 (100%)
Hearing loss	331 (55.8%)	262 (44.2%)	593 (100%)
Pharyngitis	242 (44.3%)	304 (55.7%)	546 (100%)

Table 5: Distribution of ENT diseases seen in our clinic.

Diseases	Number	Percentage (%) of new patients
Ear diseases	1604	32.50%
Throat diseases	1560	31.60%
Nose diseases	1392	28.20%
Head & neck tumours	380	7.70%
Total	4936	100%

Table 6: Sex distribution of ENT diseases.

	Ear	Throat	Nose	Head & Neck
Male	900 (56.1%)	909 (58.3%)	664 (47.7%)	239 (62.9%)
Female	704 (43.9%)	651 (41.7%)	728 (52.3%)	141 (37.1%)
Total	1604 (100%)	1560 (100%)	1392 (100%)	380 (100%)

Discussion

This study noted new patients' attendance of 22.5% (4,936) out of 21,979 visits over this study period. 77.5% of this attendance includes cases that were primarily ENT cases seen in clinic, and cases that were referred out of ENT clinic whose pathologies were not primarily otorhinolaryngological. This study analyzed only the new cases seen in ENT clinic within this study period, with an average of 82 new patients seen per month, and 987 new cases per year.

Out of the 4,936 new patients seen, 51.3% (2,532) were males, and 48.7% (2,404) were females, giving a male:female ratio of 1.05:1. This indicates that more males presented to our clinic within the study period, however there is no significant difference in the male to female ratio of clinic attendance. This finding is like the study by Kamfwa and Victor in Zambia [1], and the study in Ibadan by Fasunla et al. [2].

There were more adults (18 years and above) seen in our clinic than the pediatric population (0 to 17 yrs). More adults presenting to our ENT clinic may be because children primarily present to the Pediatric clinics before onward referral to ENT clinic if the pediatricians deem it necessary. This is similar to the finding of Fasunla et al. [2] in Ibadan; however their cut off for the adult age group was at 15 years and above. This is an age limit lower than 18 years and above which was applied in this study.

Obstructive adenoids and tonsils was the commonest disease in pediatric population in our study. This finding is contrary to that of Fasunla et al. [2] in Ibadan where otitis media was the commonest finding and obstructive adenoids and tonsils was the third commonest disease. Our study is also at variance with that of Kamfwa et al. [1] in Zambia where obstructive adenoids and tonsils was their third commonest throat disorder. Rhinitis was seen in other pathologies like obstructive adenoid and tonsils, and some cases of CSOM, however, cases referred to as rhinitis in this study are patients who had records of nasal discharge, for whom diagnosis of obstructive adenoid and tonsils were not established. In addition, are also cases where an allergic rhinitis diagnosis was made.

Chronic Suppurative Otitis Media (CSOM) was the commonest ear disease in pediatric population in this study. This is probably because the of the increased predisposition of children to middle ear effusion, which when left untreated or poorly treated progresses to a

suppurative ear infection. In addition, children may also present late to clinic in the course of the infection sequel to their parents doing self-medication at home or ignoring child's symptom until visible ear discharge is seen. This finding agrees with those of Thakur et al. [3] in Nepal 2015, Ogisi and Osammar [4] in 1982, but is contrary to that of Ibekwe and Oghenekaro [5] in 2013, where otitis external was the commonest ear disease, and their report was a more comprehensive audit of ear diseases in the general population in Port Harcourt. However, the difference in the study period could also contribute to the different reports.

Rhinosinusitis was the commonest disease seen in adults. This is at variance to the study by Fasunla et al. [2] where hearing loss was the commonest disease in adults and rhinosinusitis was second. This variance can also be attributed to the fact that Port Harcourt which is the location of this study is a more industrialized setting when compared to Ibadan which is the study location in the study by Fasunla et al [2]. This relatively higher industrialization level translates to a higher rate of air pollution which primary sensitizes the airway, leading to not only more cases of rhinosinusitis, but also an increased risk of sinonasal and lung pathologies for the city dwellers. The finding of Ear diseases was the most prevalent ENT disorder in our centre, similar to studies done by Fasunla et al. [2] in Ibadan, Kamfwa et al. [1] in Zambia, Nepali and Sigdel [6] in Nepal in 2012 and Anandhasayanam et al. [7] in India. As much as ear diseases were most prevalent in our study, there were cases of patients who had diseases that involved more than one of the ear, nose or throat.

Conclusion

This study found ear diseases to be the most prevalent in our ENT clinic. Obstructive adenoid and tonsils was found to be the commonest ENT disorder among the pediatric age group while rhinosinusitis was found to be the commonest disorder in the adult population.

Reccomendation

There is need for more public enlightenment on Otolaryngological diseases, to demystify them and encourage early presentation to ENT specialist clinics, and there is need to improve advocacy on the effect of industrialization on prevalence of ENT diseases. In addition, there is need for us to improve our documentation and record keeping for purposes of accurate dissemination of information especially in retrospective cases why there is huge reliance on previously documented information.

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