



Full Length Research Paper

Pattern of otorhinolaryngological cases seen in an eye clinic in Port Harcourt, Nigeria

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Abstract

This study was carried out to review the pattern of ENT cases seen in the eye clinic of a tertiary hospital. This was a 5 - year retrospective review of patients' hospital records who presented to the eye clinic primarily or through referral from the ENT clinic of University of Port Harcourt Teaching Hospital from January 2006 through December 2010. 43 cases were seen during the period under review of the 24,000 cases seen in the clinic during this period. The age range was 4 months to 78 years with a mean age of 35.9 ± 17.2 years. There male: female ratio was almost equal (0.9:1). The five most common ENT diseases were acute otitis media (40.8%), chronic suppurative otitis media (11.6%), facial nerve palsy (11.6%), nasopharyngeal carcinoma (11.5%), sinonasal carcinoma (6.9%), while the five most common ophthalmic pathologies in these group of patients were Facial nerve palsy (20.9%), headache (9.3%), proptosis (9.3%), ptosis (9.3%) and epiphora (6.9%). The pattern of otorhinolaryngological diseases seen in the eye clinic has been shown by this study. The findings from this study brings to the fore the common pathologies likely to be encountered in the two medical fields and would guide the clinician in their management of these patients.

Keywords: Pattern of diseases, otorhinolaryngology, eye clinic, tertiary hospital.

INTRODUCTION

The orbit and its contents are intimately related to the ear, nose and throat. It is therefore not uncommon to find disease conditions affecting these systems. Moreover the nerves which supply these structures are also closely related in their course. The facial nerve and its branches span and innervate these systems at various levels (Stamberger and Lund, 2007).

The paranasal sinuses in one way or the other are related to the orbit and its contents, therefore diseases can spread or extend from one to the other.

The roof of the maxillary sinus is the floor of the orbit while the frontal sinus is related to the roof and the supraorbital margin (Stamberger and Lund, 2007). The inferior wall also relates to the orbit and its content while the ethmoidal sinuses relate to the medial orbital wall (Stamberger and Lund, 2007). The lateral wall of the ethmoidal labyrinth is separated from the orbit by the thin

paper-like lamina papyracea which can easily be destroyed leading to spread of ethmoidal infections into the orbit (Dinghra, 2010). The anterior part of the sphenoidal sinus in its roof is related to the optic chiasma and the frontal lobe (Grevers, 2006).

Head and neck tumours also present with ophthalmic complications (Akinsola et al., 2006). Untreated mucocoeles result in serious orbital and intracranial complications such as gaze restrictions, proptosis, cerebrospinal fluid (CSF) leak. Infection of the mucocoeles and paranasal sinuses could lead to orbital cellulitis, meningitis and brain abscess (Hayasaka et al., 1991; Sautter et al., 2008).

It is not a rarity therefore to have patients who present in the ophthalmology clinic with otorhinolaryngological pathology and vice versa. A sound knowledge of the common pathological conditions in this regard will be valuable.

The rationale for this study is therefore to highlight those common pathologies prevailing locally at the interphase of these two systems to arm the ophthalmologist and the otorhinolaryngologist with this

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Table 1. Age distribution of 43 patients with ENT pathology

AGE IN YEARS	NO OF PATIENTS	PERCENTAGE
< 1	1	2.3
1- 10	2	4.6
11- 20	5	11.6
21- 30	7	15.3
31 – 40	12	27.9
41 – 50	10	23.3
51 – 60	3	6.9
61 – 70	1	2.3
>70	2	4.6
TOTAL	43	100

Table 2. Sex distribution of the patients

SEX	Number of patients	Percentage (%)
FEMALE	23	53.5
MALE	20	46.5
Total	43	100

information in the management of patients.

MATERIALS AND METHODS

In a retrospective, non-comparative case series study the records of all the otorrhinolaryngological cases seen in the Eye Department of the University of Port Harcourt Teaching Hospital, Port Harcourt, between January 2006 and December 2010 were analyzed for age, sex, presenting complaints, otorrhinolaryngological diagnosis, ophthalmic diagnosis.

The data for this study was analyzed using the Statistical Package for Social Sciences (SPSS).

RESULTS

Forty three cases were seen during a five year study. Their ages ranged from 4 months to 78 years with a mean age of 35.9 ± 17.2 years (Table 1). Twenty three (53.5%) of these subjects were females and 20(46.5%) were males giving a ratio of 0.9:1(Table 2).

In Table 3, the ENT pathologies that were seen in the ophthalmology clinic are shown. The five most common ENT diseases which presented in the ophthalmology clinic where acute otitis media (40.8%), chronic suppurative otitis media (11.6%),facial nerve

palsy(11.6%),nasopharyngeal carcinoma(11.5%),sinonasal carcinoma(6.9%).

Ophthalmologic pathologies for which the patients presented at the clinic are illustrated in Table 4.The five most common ophthalmic pathologies in these group of patients were Facial nerve palsy (20.9%), headache (9.3%), proptosis (9.3%), ptosis (9.3%) and epiphora(6.9%).

DISCUSSION

Diseases of the ear, nose and throat commonly affect the orbit and/or the globe and its surrounding structures. Untreated mucocoeles could for instance lead to serious orbital and intracranial complications. These mucocoeles also pose a surgical challenge due to the proximity to critical structures. Some otorhinolaryngological conditions present with orbital and ocular pain and pathology and vice versa because of the close relationship anatomically of the orbital cavity and paranasal sinuses (Neumann, 2011).

In this study there was a wide age range with the youngest at 4years and the oldest at 78years. We found ENT pathologies to be almost equal in both sexes with a slight female preponderance.

Acute otitis media (AOM) is the inflammation of the middle ear, characterized by accumulation of infected

Table 3. ENT disorders in 43 patients seen in the eye clinic

CAUSES	NUMBER OF PATIENTS	PERCENTAGE
Acute otitis media	6	40.8
Ameloblastoma	1	2.3
Chronic maxillary sinusitis	1	2.3
Chronic suppurative otitis media	5	11.6
Basoadenocarcinoma of the salivary gland	1	2.3
Ethmoidal mucoele	1	2.3
Facial nerve palsy	5	11.6
Fracture of the nasal bone	1	2.3
Frontoethmoidal mucocoele	1	2.3
Frontoethmoidal fistula	1	2.3
Laryngomalacia	1	2.3
Maxillary anthral malignancy	2	4.6
Nasopharyngeal carcinoma	5	11.5
Oropharyngeal tumour	1	2.3
Paranasal sinusitis	1	2.3
Puffy potts tumour	1	2.3
Recurrent tonsillitis	1	2.3
Sinonasal carcinoma	3	6.9
Trigeminal neuralgia	1	2.3
TOTAL	43	100

Table 4. Pattern of ophthalmic presentation

DISORDER	NUMBER OF PATIENTS	PERCENTAGE
Anterior uveitis	1	2.3
Down's syndrome	1	2.3
Ethmoidal mucocoele	2	4.6
Ocular pain	2	4.6
Facial nerve palsy	9	20.9
Epihora	3	6.9
Headache	4	9.3
Herpes zoster ophthalmicus	2	4.6
Ophthalmoplegia	2	4.6
Proptosis	4	9.3
Periorbital swelling	1	2.3
Glaucoma	1	2.3
Ptosis	4	9.3
Pyocoele of the lid	1	2.3
Trigeminal neuralgia	2	4.6
Vernal keratoconjunctivitis	2	4.6
Enophthalmos	1	2.3
presbyopia	1	2.3
TOTAL	43	100

fluid in the middle ear, bulging of the eardrum, pain in the ear and if the eardrum is perforated drainage of the purulent material into the ear canal .AOM is more common in children, but also affects adults. As a result of the close anatomical proximity to structures such as

the facial nerve, inner ear, the meninges and intracranial spaces. This makes these structures vulnerable to spread of infection from the middle ear with its possible complications. Complications of AOM, include chronic otitis media (COM), meningitis, facial nerve palsy

(Redaelli de Zinis et al., 2003, Naidoo 2004). In facial nerve palsy the lid is unable to shut completely, a condition known as lagophthalmus. This in turn causes corneal drying and ulceration (Naidoo, 2004). Acute otitis media was the commonest ENT pathology found in our study (40.8%). Chronic otitis media (11.6%) was the second most common ENT pathology. These patients may have initially presented with acute otitis media however their presentation at the clinic was not at the acute period. The facial nerve involvement in active COM, is from direct bone erosion of the facial canal by cholesteatoma or granulation tissue (Gacek, 1992; Yetiser et al 2002). Other ENT pathologies found in this series include; facial nerve palsy (11.6%), nasopharyngeal carcinoma (11.5%) and sinonasal carcinoma (6.9%).

A Malaysian based study showed chronic otitis media and nasopharyngeal carcinoma to be among the top 5 ENT diseases which presented at an ENT outpatient clinic (Sing, 2007).

The pattern of ophthalmic presentation in this study showed that Facial nerve palsy topped the list (20.9%). This lends credence to the pathogenesis of facial nerve palsy as regards its origin from the diseases affecting the ear. This study could not however ascertain if otitis media was the sole aetiopathogenesis of the cases of facial nerve palsy, as some cases may have resulted from Bell's palsy. Other common ophthalmic presentations found in this series were; headache (9.3%), proptosis (9.3%), ptosis (9.3%) and epiphora (6.9%).

CONCLUSION

There is paucity of literature regarding similar studies however this study has shown the pattern of otorhinolaryngological cases which commonly present in the eye clinic with associated ophthalmic symptoms. Since this interdisciplinary approach to management is prevalent, it is imperative that the clinicians familiarize themselves with these disorders.

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