

RESEARCH PAPER
EAR, NOSE AND THROAT MANIFESTATIONS IN
GERIATRICS

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ABSTRACT

The aim of this study is to present my observation of the common ear, nose and throat conditions in geriatrics, i.e. in the old age patients. This is a retrospective study analysis of 417 geriatric patients that presented at the Ear, Nose and Throat (ENT) clinic at the Komfo Anokye Teaching Hospital between January 2006 and December 2010. The diagnosis in each patient was based on the history, clinical findings and investigations done on each patient at the time of presentation. The patients were aged between 65 and 93 years with a mean age of 74.6 years. The main presentation of these geriatric patients were otological conditions in 209 (50.1%), rhinological conditions in 118 (28.3%) and then pharyngolaryngological conditions in 90 (21.6%). Some of the common conditions include presbycusis (16.7%), cerumen obturans (15.3%), allergic rhinitis (14.9%), pharyngolaryngitis (9.8%), rhinosinusitis (8.2%), foreign body in throat (7.0%) etc. With the current improvement in life style, the life expectancy is supposed to be increased. In effect the otolaryngologist is going to be affronted with these challenges.

Keywords: *Geriatrics, Ear, Nose and Throat manifestations, Presbycusis, Cerumen obturans, Allergic rhinitis.*

INTRODUCTION

Life expectancy in the sub region has been found to be improving gradually over the past decade. This has been attributed to the current life style pattern, improving environmental situations and health care delivery.

In effect the population of the elderly or the aged will be increasing and the practitioners will be expected to be attending more to the elderly. In this context one evaluates the com-

mon ear, nose and throat conditions that were manifested in the elderly or the aged person. In a similar study conducted by Ogunleye *et al.* (2005) in Ibadan, Nigeria on 170 geriatric patients, 67.1% presented with otological conditions, 18.2% presented with rhinological conditions, 12.9% with laryngological conditions and 1.8% also presented with facial plastic conditions. Some of the common ear, nose and throat conditions presented include presbycusis (20.6%), cerumen obturans (17.6%), rhinosi-

nusitis (11.8%), laryngeal carcinomas (5.9%), tinnitus (4.7%), etc.

Okoye *et al.* (2005) also reported in a ten year retrospective review of patients aged 60 years and above seen between January 1994 and December 2003 at the ENT Surgery Department of the University of Port Harcourt Teaching Hospital. In their study nine hundred and seventy-two (972) geriatric patients were involved in the study, of these, 537 (55.2%) presented with otological conditions, followed by rhinological conditions with 180 patients (18.5%), then laryngological conditions with 154 patients (16.4%) whereas 65 patients (6.7%) presented with unspecified conditions. Chronic suppurative otitis media (CSOM) was the commonest of the otological conditions, constituting 25.0%, then otomycosis in 17.5% and cerumen obturans in 15.3% of the patients. Allergic rhinitis was the commonest rhinological condition constituting 58.0% of all rhinological conditions while chronic pharyngitis topped the list of laryngological conditions with 34.4%.

Ologe *et al.* (2005) also conducted a retrospective study of 320 patients aged 60 years or older presenting with ear diseases at the University of Ilorin, Ilorin, Nigeria, between January 1996 and December 2001. In their study they realized that impacted cerumen obturans was the commonest ear disease, occurring in 110 (34.4%) patients of the study population. Chronic suppurative otitis media (CSOM) was the most common infectious disease, affecting 28 (8.8%) patients whereas presbycusis was identified in 20 (6.3%) of the patients.

Kandogen and Seifert (2002) conducted similar studies in their respective countries, Turkey and Switzerland which was published together. Their studies conducted between these two cultures revealed that laryngopharyngeal conditions were prominent in the old aged. Seifert in Switzerland identified vocal cord paralysis in 45% whereas Kandogen in Turkey also identified vocal cord lesions in 39% of the aged patients.

Bunnag *et al.* (2002) conducted a study on the prevalence of ear disease and hearing disability in elderly Thais in 14 communities around Siriraj Hospital of Mahidol University (Bangkok, Thailand). Altogether, 980 elderly people aged 60 years or more, with ages in the range of 60 to 96 years with an average age of 68.5 years were involved in the study. The most common ear problem was cerumen obturans (8.0%), then otitis externa (4.3%).

Prasansuk *et al.* (2004) in Mahidol University in Bangkok, Thailand conducted a research on 1565 elderly inhabitants (age more than 60 years) of 20 communities adjacent to Siriraj Hospital. Among these 256 persons (16.4%) presented with balance disorders (Vertiginous syndrome).

Roy *et al.* (2007) in USA conducted a prospective cross-sectional study on 117 elderly for phonatory disorders. They consisted of 39 males and 78 females; mean age of 76.1 years, SD. 8.5 years, ages range 65-94 years, residing in Utah and Kentucky states. They found the incidence rate of phonatory disorders to be 29.1%.

Kayode *et al.* (2010) in Ilorin, Nigeria, conducted a ten year hospital based retrospective study between January, 1999 and December, 2008 at the ENT Department of University of Ilorin Teaching Hospital, Ilorin. The study included all patients aged 65 years and above who reported to the ENT Clinic (UITH) with otological complains. They were 740 geriatric patients consisted of 444 males and 296 females with a male-female ratio of 1.5:1.0. In their study cerumen impaction was the commonest otological disease found, accounting for 360 (48.7%) of cases, physiological hearing loss (Presbycusis) in 158 (21.4%), tinnitus in 78 (10.5%) and otomycosis in 64 (8.5%). Other conditions were chronic suppurative otitis media (CSOM) in 34 (4.6%); foreign body impaction in 32 (4.3%); vertigo in 10 (1.4%) and aural tumours in 5.0 (0.6%).

MATERIALS AND METHOD

This was a retrospective study conducted at the Ear, Nose and Throat (ENT) clinic of the Komfo Anokye Teaching Hospital – Kumasi between January 2006 and December 2010. Four hundred and seventeen (417) patients were involved in the study. They consisted of two hundred and forty-one (241) males and one hundred and seventy-six (176) females with a male – female ratio of (1.4:1).

The patients were aged between 65 and 93 years with a mean age of 74.6 years as shown in Table 1.

RESULTS AND DISCUSSION

Of the four hundred and seventeen geriatric patients involved in the study, 46.3% were between 71 and 75 years, 24.9% were between 76 and 80, 14.6% were between 65 and 70 years, 8.2% were between 81 and 85 years, 4.6% were between 86 and 90 years, whereas 1.4% were above 90 years with respect to their age group as shown in Table 2.

The main presentations in these geriatric patients were otological presentation in 209 of all the elderly patients (50.1%), rhinological in 118 of them (28.3%) and pharyngolaryngological

Table 1: Sex distribution

Total number of patients	417
Age range	65 - 93 years
Mean age	74.6 years
Males	241
Females	176
Male-Female ratio	1.4:1

These were patients who had reported to the Ear, Nose and Throat (ENT) Clinic, underwent a thorough ear, nose and throat examination using the Ziegler’s head mirror and a standing light source. Their ears were examined using Hartmann’s aural speculum, noses examined using Thudicum’s nasal speculum, and their throat examined using Breuning’s tongue depressor and a laryngeal mirror. Some of the patients in whom hearing loss was suspected underwent an audiological examination whereas those with suspected balance disorders also underwent vestibular examinations.

On the basis of the medical history and the clinical examination findings, their diagnoses were then established. These were recorded into their hospital folders which are normally kept in the ENT Records Department. The data for the study was obtained from the folders of patients aged 65 years and above who attended the ENT Clinic within that period.

presentations in 90 of them (21.6%). Some of the common presentations in these geriatrics patients were presbycusis in 70 patients (16.7%), cerumen obturans in 64 (15.3%), allergic rhinitis in 62 (14.9%), pharyngolaryngitis in 41 (9.8%), otitis media in 38 (9.1%), rhinosinusitis in 34 (8.2%), foreign body in throat in 29 (7.0%). Others include epistaxis in 16 (3.8%), otitis externa in 13 (3.1%), laryngeal tumour in 12 (2.9%), vertiginous syndrome in 9 (2.2%) and facial nerve palsy in 8 (2.0%). The less common conditions included were foreign body in the ear in 7 (1.7%), nasal polyps in 6 (1.4%), bulbar palsy in 5 (1.2%) and then pharyngeal tumour in 3 (0.7%) as shown in Table 3. Care of the geriatrics patients involves fundamental premises, which must be taken into account in treatment by the otolaryngologist.

In this study the main presentations were otological presentations in 209 (50.1%), rhinological presentations in 118 (28.3%) and laryngological presentation in 90 (21.6%)

respectively.

Table 2: Age distribution

Age group (years)	Number of Patients	Percentage %
65-70	61	14.6
71-75	193	46.3
76-80	104	24.9
81-85	34	8.2
86-90	19	4.6
90 +	6	1.4

Table 3: Pattern of otorhinolaryngological diseases

Conditions	Incidence	Percentage %
Otological	209	50.1
Cerumen obturans	64	15.3
Otitis externa	13	3.1
Foreign body in Ear	7	1.7
Otitis media	38	9.1
Presbycusis	70	16.7
Vertiginous syndrome	9	2.2
Idiopathic facial nerve palsy	8	2.0
Rhinological	118	28.3
Epistaxis	16	3.8
Rhinosinusitis	34	8.2
Nasal polyps	6	1.4
Allergic rhinitis	62	14.9
Laryngological	90	21.6
Pharyngolaryngitis	41	9.8
Pharyngeal tumour	3	0.7
Bulbar palsy	5	1.2
Laryngeal tumour	12	2.9
Foreign body in Throat	29	7.0

Table 4: Comparison of the incidence of otorhinolaryngological manifestations in geriatrics from various studies

Conditions	Current study	Ogunleye <i>et al.</i> 2005	Okoye <i>et al.</i> 2007
Otological	50.1	67.1	55.2
Rhinological	28.3	18.2	18.5
Laryngological	21.6	12.9	16.4
Non-specified	-	1.8	6.7

In a similar study conducted by Ogunleye *et al.* (2005) in Ibadan, Nigeria on 170 geriatrics showed that otological presentation were in 114 patients (65.1%) followed by rhinological presentations in 31 patients (18.2%) and laryngological presentations in 22 patients (12.9%). Okoye *et al.* (2007) in Port Harcourt, Nigeria also realized in a similar study that among nine hundred and seven-two (972) geriatric patients studied, otological conditions were manifested in 55.2%, rhinological conditions in 18.5%, laryngological conditions in 16.4% whereas unspecified conditions were 6.7%. These studies showed that otological conditions were more manifested in the geriatric patients, followed by rhinological and then laryngological conditions respectively as shown in Table 4.

In this study the commonest presentation was presbycusis in 70 (16.7%) as compared to the 35 (30.7%) by Ogunleye *et al.* (2005) in Ibadan-Nigeria, followed by cerumen obturans in 64 (15.3%) as compared to the 30 (26.3%) observed by Ogunleye *et al.* (2005).

The presbycusis which is basically hearing loss due to aging has also been defined as a physiological process in aged persons. In this respect it is more likely that the aged may present frequently with this condition. Ruben (2007) reported that between 30% and 40% of people aged 65 years and above have significant hearing loss. As some people aged structures of the ear become less elastic and undergo changes that make them less able to respond to sound waves, contributing to their hearing loss. Degeneration of the acoustic nerve fibers will lead to reduced ability of the nerve to transmit impulses to the cochlear nucleus in the pons of the brainstem and hence to the superior temporal gyrus of the brain. This also may contribute a lot to the hearing loss.

The cerumen obturans which has been found to be commoner at the extremes of life due to immature or loss of the self-cleansing migration mechanism of the outer ear is quite frequent in the aged. One factor which also attribute to the

accumulation of cerumen in the external auditory canal of the aged is the reduced ability of the aged to masticate, as the expulsion of cerumen from the canal is aided by mastication.

CONCLUSION

In conclusion, presbycusis, cerumen obturans, pharyngolaryngitis, allergic rhinitis, otitis media, rhinosinusitis, foreign body in the throat were some of the main representations among the geriatrics studied.

Currently with the introduction of the National Health Insurance Scheme (NHIS) more patients are presenting to the hospital likewise the geriatrics.

With the current improvement in the health delivery system the life expectancy will be increasing and as such more old aged patients are going to present for health care services.

In effect all otorhinolaryngologist, are supposed to bear in mind the most common presentations and the current management of these conditions of the ear, nose and throat especially in the geriatrics.

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