

Spectrum Of Otorhinolaryngology Emergencies In The Elderly In Ibadan Nigeria.

* T.S. Ibekwe MB BS, ** O.G.B. Nwaorgu MB BS, FWACS, ** P.A. Onakoya MB BS, FWACS, *** P.U. Ibekwe MB BS

Department of *Otorhinolaryngology, University College Hospital Ibadan, **College of Medicine University of Ibadan,
***Catholic Hospital Eleta, Ibadan, Nigeria.

ABSTRACT

Background: The elderly (65 years and above) are a special group of patients whose illnesses and management are modified by the process of aging. It is thus the aim of this study to evaluate the spectrum of ear, nose, throat, head and neck emergencies among the elderly in Ibadan, Nigeria.

Method: This is an eight-year (April 1996-March 2004) retrospective study of 87 geriatric patients who presented with otorhinolaryngological emergencies at our centre.

Results: Eighty-seven emergency cases studied constituted about 20% of the total geriatric cases seen within this period. There were 55 (63.2 per cent) males and 32 (36.8 per cent) females. The pharyngolaryngeal emergencies with upper airway obstruction constituted 55 per cent of the cases, a majority being a result of malignant lesions of the larynx and pharynx. Others were nasal 20.7 per cent, otological 11.5 per cent, oesophageal 9.7 per cent and head and neck 3.1 per cent. Most of the patients had emergency tracheostomy (54 per cent), as a prelude to their definitive management while 24 per cent were managed medically.

Conclusion: Prevalence of emergency Otorhinolaryngology cases among the elderly appears high. Most of the throat diseases with upper airway obstruction were due to malignancy. There is thus the need for increased awareness of the people through social campaigns and health education on the merits of early detection and seeking appropriate treatment for these tumours.

KEY WORDS: Otorhinolaryngology emergencies; Elderly; Pharyngolaryngeal diseases; Nigeria.

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INTRODUCTION

Otorhinolaryngology and head and neck surgical emergencies are life-threatening conditions especially as the airways are often at the risk of

being compromised. The situation is even worse at the extremes of life (children and the elderly) because of the peculiar features of these groups.

Otorhinolaryngology (ORL) paediatric emergencies (15 years and below) in the Tropics appear to have attracted more attention in the literature than the elderly (65 years and above). Martinson¹ demonstrated that foreign bodies in the airway, ear, nose and throat are the most common otolaryngological emergencies among children in the tropics.

The relatively decreased immunity in the elderly partly makes them more susceptible to infections and neoplasia². Disorders of swallowing are not uncommon in the elderly³, as a result impaction of foreign bodies in the upper aero-digestive tract could occur as emergencies. These could be complicated by aspiration and subsequently pulmonary and other systemic diseases. Neuro-psychological inadequacies accompanying aging often lead to hearing/balance disorders and incessant falls of serious consequences⁴.

There is a dearth in literature on the spectrum of ORL emergency disease among the elderly in Africa in general and Nigeria in particular. It is in this view that the study was carried out while hoping that the findings from it will add to already existing knowledge on this subject in the sub-region.

MATERIALS AND METHODS

This is a retrospective review of eighty-seven elderly patients (age 65 years and above) that presented in emergencies at the ORL Department of the University College Hospital Ibadan over an eight-year period (April 1996 to March 2004).

The records of all elderly patients seen in the Department of Otorhinolaryngology, University College Hospital, Ibadan during this period were retrieved and those with Otorhinolaryngology emergencies were further studied for analysis

Data extracted for analysis included- biodata, clinical presentations, diagnosis and treatment given. The result is presented in simple descriptive form, Tables and Figure.

RESULTS

A total of 425 elderly patients were seen

during the eight-year (April 1996 March 2004) study period out of which 87 (20.5 per cent) were emergencies. The emergency cases were made up of 55 males (63.2 per cent) and 32 females (36.5 per cent) giving a male to female ratio of 1.7:1. Their mean age was 75.4 years (range 65 - 90 years). Pharyngolaryngeal and nasal emergencies constituted 55.2 per cent and 20.7 per cent of cases respectively. Others included ear 11.5 per cent, oesophageal 9.3 per cent and head and neck 3.4 percent of cases.

There is evident male preponderance in all but ear emergencies where there is an equal gender ratio. The details of the distribution of the various diseases are as presented in Tables I and II.

The spectrum of the diseases with respect to gender is outlined in Fig. 1.

Table I. Distribution spectrum of ORL emergencies in the elderly

Emergencies	Number	Percentage
<i>Pharyngolaryngeal</i>		
Laryngeal tumour	28	32.2
Trauma (RTA & Cut throat injuries)	7	8
Oropharyngeal tumours	5	5.7
Hypopharyngeal tumours	2	2.3
Vocal cord paralysis	5	5.7
Inhalation of foreign body (denture)	1	1.1
Total	48	55
<i>Oesophageal emergencies</i>		
Foreign body in the oesophagus (dentures, fish bone)	7	8
Corrosive Oesophagitis (accidental ingestion)	1	1.1
Total	8	9.2

Table II. Distribution spectrum of ORL emergencies in the elderly

Emergencies	Number	Percentage
<i>Nasal</i>		
Epistaxis (assoc. with hypertension, sinonasal lesion, trauma)	12	13.8
Nasal pyramid avulsion injury (gun shot)	2	2.3
CSF rhinorrhea (# skull base)	2	2.3
Septal abscess	2	2.3
Total	18	20.7
<i>Otological emergencies</i>		
Foreign body in the ear (live insects, cotton bud)	3	3.4
Severe vertigo (BPPV, Menieres disease)	3	3.4
Otitis externa malignance (known diabetic)	3	3.4
Cerebral abscess 2 ^o mastoiditis	1	1.1
Total	10	11.5
<i>Head & Neck emergencies</i>		
Potts puffy tumour and Orbital cellulitis	2	2.3
Right suppurative adenitis	1	1.1
Total	3	3.4

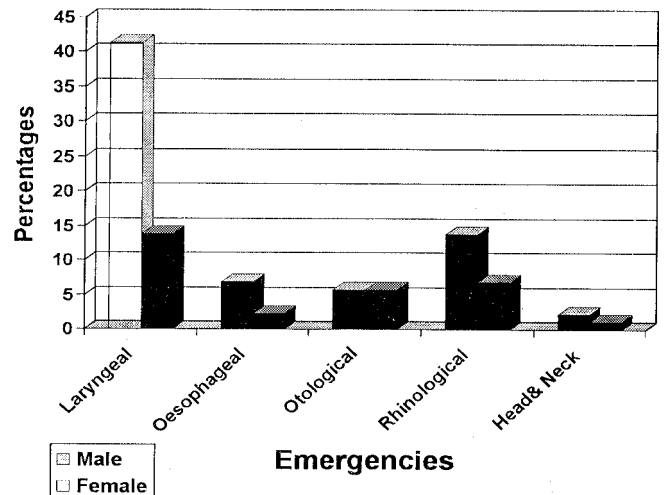


Fig. 1. Spectrum of emergency distributions among the gender

DISCUSSION

The elderly are high-risk patients under emergency situations and thus can pose a treatment dilemma to the physician. In-depth knowledge of different types of emergencies in the various fields of medicine and surgery among the elderly can be a useful tool to the emergency team and indeed the general practitioners. From this present study, pharyngolaryngeal diseases which constituted fifty-five percent of all the emergencies are the highest among the otorhinolaryngology emergencies observed in our environment. These patients presented with features of upper airway obstruction, which necessitated establishment of an alternative airway to relieve the obstruction.

Laryngeal tumours at an advanced stage constituted about two third of these cases while others were obstructive oropharyngeal and hypopharyngeal tumours (Fig. 1, Table I). This is in agreement with Perez *et al's* study in ENT emergency in Spain which noted that "tumoural process" constituted the commonest emergency in patients 60 years and above while infection/inflammation (41 per cent) was the commonest among the younger age group⁵. Earlier studies noted that age is a prominent factor determining susceptibility to cancer⁶ as increase in age leads to longer duration of exposure to carcinogens.

Most of these patients with advanced laryngeal cancers presented late to the accident and emergency unit probably due to poverty, ignorance and resort to unorthodox medical practice. This trend in presentation of patients with malignancies of the upper aerodigestive tract, and head and neck region had been noted by previous studies from this

environment^{7,8}. Most of the patients have lived with persistent hoarseness for years without seeking medical attention. The emergency tracheostomy done in these cases with upper airway obstruction served as a prelude to definitive management of the primary problems, which included radiotherapy, surgery (total laryngectomy) or a combination of both.

Trauma to the larynx due to road traffic accidents, gunshots, and cut throat injuries from armed bandits ranked second. These equally presented with upper airway obstruction necessitating emergency tracheostomy, neck exploration and repair. Most of the elderly in the African contemporary society still remain active in their jobs and travel far and wide on various business trips thus they are susceptible to most risks that the young and active are prone to. The old peoples home are almost none existent in our environment rather, the "oldest old"⁹ are taken care of by their children and relations.

Vocal cord paralysis was also a relatively common presentation among the laryngeal emergencies. This finding is not surprising since neurodegenerative disorders affect deglutition, speech and laryngeal functions by involving primarily cranial nerves IX, X and XII¹⁰. However loss of neural motor control following neurological disorders associated with the process of aging is not common¹¹. There should be a high index of suspicion of some occult primaries and secondary metastatic lesions that involve the neural supply of the vocal cord muscles.

The rare case of inhalation of an upper denture, despite its broad surface area that makes it easily extractable¹²; recorded in a psychologically sound "young old"⁹ appears to demonstrate that swallowing disorders and suppressed cough reflexes may be seen in the elderly. Age related changes such as decreased fatty and connective tissue bulk in the tongue, alveolar bone atrophy, dentition loss and decreased oesophageal muscle tone have been demonstrated by pathologists³. All these culminate in slowing down the three phases of swallowing (oral, pharyngeal and oesophageal) in the elderly. Persistence of some age related neurological disorders could also lead to swallowing abnormalities that predispose to aspiration.

Cerebrovascular accidents involving the non-dominant hemisphere specifically inhibits the pharyngeal phase of swallowing leading to pharyngeal stasis, which predisposes to aspiration³. Other related neurological disorders include motor neuron disease, Parkinson's disease, diabetic

neuropathy, polymyositis and arthritis involving the temporo-mandibular joint. It is therefore not surprising that foreign body impaction (dentures and fishbone) in the oesophagus was mainly the oesophageal emergency recorded among the elderly. These were treated through emergency rigid oesophagoscopy and foreign body removal. A case of accidental ingestion of corrosive was seen and managed conservatively.

Nasal emergencies were second most common in the series constituting about 20.7%, two-third of which were epistaxis. The epistaxes were associated with hypertension, sinonasal tumours and trauma. This study collaborated the findings of Perez *et al*⁶, Timsit *et al*¹³ and Sanchez-Alcon *et al*¹⁴ that recorded epistaxis as most frequent nasal presentations in their ENT adult emergency clinics. All cases of epistaxis associated with hypertension presented with posterior nasal bleed only, unlike those secondary to trauma and sinonasal tumours, which were either anterior nasal bleed or both. The epistaxes were controlled with anterior nasal packing or in conjunction with posterior nasal packing prior to definitive management. Blood transfusion was given to stabilize the haemodynamics of the patient where appropriate.

Other nasal emergencies included partial avulsion injury of the external nose via gunshot, cerebrospinal fluid rhinorrhoea secondary to skull base fracture and septal abscess. The nasal avulsion was repaired in conjunction with the plastic surgical team through a rotated frontonasal flap; CSF rhinorrhoea was managed conservatively while an emergency incision and drainage was done for the septal abscess.

Otological emergencies constituted about 11.5% of all cases seen. Foreign bodies in the ear and severe vertigo were the most frequent diagnosis. Live insects (cockroaches) were extracted from the ears of 2 patients. This is usually very distressing due to the "buzzing" noise, which they generate. While these may not be directly associated with aging, the socio-economic situation and level of personal hygiene of the patient may be important factors. The treatment of such live insects is suffocation with oil prior to forceps removal and anti tetanus prophylaxis. The cases of severe vertigo attributed to Meniere's disease and the benign positional vertigo were managed conservatively (bed rest and vestibular sedatives).

The head and neck emergencies recorded in this work (Pott's puffy tumour [frontal sinus abscess] with orbital cellulitis and right suppurative cervical adenitis) constituted about 3.1% and were managed

surgically through a fronto-ethmoidectomy with orbital decompression, and incision and drainage respectively. While these may not be specifically geriatric, however, it is known that the relatively decreased immunity in the elderly predisposes to infections.

In conclusion, there appears to be a high prevalence of emergency ORL cases among the elderly in Nigeria (20 per cent). This study has revealed that a major proportion of pharyngolaryngeal emergencies with upper airway obstruction necessitating emergency establishment of alternate airway was due to malignant lesions. There is thus the need for increased awareness of the people through social campaigns and health education on the merits of early detection and seeking appropriate treatment for these tumours. The aim of this is to provide quality health care services and thus protect the growing population of the elderly in our environment.

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