

## Original Article

# Otorhinolaryngological Emergencies in a Tertiary Hospital in Port Harcourt

UM Ibekwe

Department of Ear Nose and Throat Surgery, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria

ABSTRACT

**Background:** Emergencies are not uncommon in a typical otorhinolaryngological (ORL) clinic. The knowledge of the profile and prevalence of these emergencies will go a long way in helping to equip as well as aid proper and prompt management of these conditions so as to reduce their morbidity and mortality.

**Patients and Methods:** A descriptive retrospective 8 years review of all patients that presented to the ENT Surgery Department from January 2004 to December 2012. This includes referrals from the accident and emergency as well as the children emergency ward. The patients case files, the ward, and theatre records were the source of data. Data collected included; age, sex, presentations, diagnosis, and management.

**Results:** There were a total number of 5660 patients that presented as emergencies, however only 2160 cases were real emergencies. Males were 1328 and females 832 with a ratio of 1.6:1. The age ranged from 6 months to 70 years. The age range 0-10 years were the most affected 670 (31.02%) followed by age range 21-30 years 534 (24.72%). The least was 61-70 years 26 (1.20%). Foreign body aspiration/ingestion/insertion was the commonest emergency 900 cases (41.7%) followed by trauma 650 (30.09%). There were five cases (0.23%) of mortality recorded. Respiratory distresses from upper airway obstruction, dysphagia, and odynophagia were the common presentations. Direct laryngoscopy, esophagoscopy, and tracheostomy were the commonest form of management.

**Conclusion:** ORL emergencies are common. The pediatric age group is the most affected; foreign body and trauma comprise the commonest emergency in our environment.

**KEYWORDS:** *Emergencies, foreign body, otorhinolaryngological, trauma*

**Date of Acceptance:**  
19-Oct-2016

## INTRODUCTION

Otorhinolaryngological (ORL) emergencies occur in every society, however, it has been found that majority of these consultations are not real emergencies.<sup>[1,2]</sup> In some studies, only about 10% were found to be truly urgent cases.<sup>[3,4]</sup>

While variety of the ORL disorders that present as emergencies are most of the time benign, some are critical requiring prompt diagnosis and treatment. There are those that are also potentially life threatening. It is of note also that some of these emergencies are avoidable causes of death and disability.<sup>[5,6]</sup>

Foreign body injuries are the commonest cause of ORL emergencies<sup>[7,8]</sup> occurring more in children.<sup>[9]</sup> Foreign bodies in the larynx and oesophagus are major causes of morbidity and mortality especially in the extremes of age.<sup>[10]</sup>

Other forms of emergencies include traumatic injuries<sup>[11]</sup> such as cut throat, blunt, and penetrating neck injuries as well as gunshot injuries with their attendant

**Address for correspondence:** Dr. UM Ibekwe,  
ENT Surgery Department, University of Port Harcourt Teaching  
Hospital, Port Harcourt, Nigeria.  
E-mail: [ibekwe\\_uju@yahoo.com](mailto:ibekwe_uju@yahoo.com)

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**For reprints contact:** [reprints@medknow.com](mailto:reprints@medknow.com)

**How to cite this article:** Ibekwe UM. Otorhinolaryngological emergencies in a Tertiary Hospital in Port Harcourt. Niger J Clin Pract 2017;20:606-9.

Access this article online	
Quick Response Code:	Website: <a href="http://www.njcponline.com">www.njcponline.com</a>
	DOI: 10.4103/1119-3077.196988

mortalities.<sup>[12]</sup> These emergencies involving the aerodigestive tract can be life threatening as well as challenging even to the otolaryngologist. Acute tonsillitis with its complications, acute epiglottitis, corrosive ingestions as well as epistaxis can be seen as serious emergencies requiring prompt intervention.

There is a paucity of the study of these emergencies in our environment, this study, therefore, is to determine the profile of these emergencies, the management, and challenges so as to improve on the morbidity and mortality of these conditions.

## PATIENTS AND METHODS

This is a descriptive retrospective 9 years review of all patients that presented as emergencies to the ENT Surgery Department from January 2004 to December 2012. This includes referrals from accident and emergency as well as children's emergency ward. The patients' case files' ward and theatre records were the source of data.

Data collected included sex, age, diagnosis, presentations, and management. These emergencies are grouped using Cuchi's etiological classification<sup>[13]</sup> with some modification. The results are presented in simple statistical tables.

## RESULTS

There were a total number of 5660 patients that presented as emergencies, however, only 2160 cases were real emergencies. Males were 1328 and females 832 with a ratio of 1.6:1.

The age ranged from 6 months to 70 years. The age range 0-10 years were most affected 670 (31.02%) followed by age range 21-30, 534 (24.72%). The least was 61-70, 26 (1.20%) [Table 1].

Foreign body was the commonest emergency seen in 900 cases (41.7%) followed by blunt trauma/RTA in 650 (30.09%). Infections and inflammation constituted the third commonest group of emergencies seen in 383 cases (17.73%) shown in [Table 2].

The commonest emergency seen in the age group 0-10 years was foreign body 480 cases representing 71.6% of the whole presentation in this group. They form 22.24% of the 41.70% foreign body emergencies. While blunt trauma/RTA, Road traffic accident. was commonly seen in the ages 21-30 and 31-40 years [Table 3].

**Table 1: Age distribution**

Age (years)	Number	Percentage (%)
0-10	670	31.02
11-20	220	10.18
21-30	534	24.72
31-40	470	21.76
41-50	160	7.41
51-60	80	3.70
61-70	26	1.20
Total	2160	100

**Table 2: The ORL emergencies**

Emergencies	Frequency	Percentage (%)
Foreign body :		
Aspiration	420	19.44
Ingestion	345	15.97
Insertion	135	6.25
Total	900	41.70
Blunt trauma/RTA	650	30.09
Epistaxis	200	9.26
Gunshot injuries	11	0.51
Cut throat injuries	6	0.28
Tumors	10	0.46
Infections/inflammations	383	17.73
Total	2,160	100

While majority of the foreign bodies seen in the ages 0-10 years ranged from peanuts to ornamental beads, that of the ages from 21 to 70 comprised of fish bones and dentures.

Commonest clinical feature seen was respiratory distress from upper airway obstruction following foreign body aspiration and ingestion as well as dysphagia and odynophagia. This was seen in about 85% of all the patients presenting with foreign body and comprised 35.42% of total number of the patients. Most of the patients were investigated radiologically using plain lateral soft tissue X-ray of the neck.

Majority of the patients in the age range of 0-10 years with foreign body had emergency tracheostomy done. Esophagoscopy and direct laryngoscopy and tracheostomy were ultimately the commonest form of management of these emergencies [Table 4].

There were five cases (0.23%) of mortality recorded. There were five cases (0.23%) of mortality recorded, as shown in [Table 5].

**Table 3: Age distribution of the emergencies**

Emergency	0–10	11–20	21–30	31–40	41–50	51–60	61–70	Total	%
FB									
aspiration	400	10	5	5	0	0	0	420	
ingestion	50	30	90	70	50	40	15	345	
insertion	30	10	35	25	20	10	5	135	
	480	50	130	100	70	50	20	900	41.70
Blunt trauma/Rta	121	69	225	185	50	0	0	650	30.09
epistaxis	29	11	55	65	35	5	0	200	9.26
Gunshot injuries	0	4	5	1	0	1	0	11	0.51
Cut throat injuries	0	1	4	0	1	0	0	6	0.28
infections/inflammation	40	84	114	116	1	23	5	383	17.73
Tumors	0	1	1	3	3	1	1	10	0.46
Total	670	220	534	470	160	80	26	2160	100

**Table 4: Procedures**

Procedures	Nos. of cases
Tracheostomy	416
Direct laryngoscopy	410
Esophagoscopy	340
Neck exploration and repair	10
Incision and drainage of abscesses	10

**Table 5: Complications**

Complications	Frequency
Tracheal stenosis	3
Alar collapse	2
Nasal synechia	3
Neck aneurysm	1
Oesophageal stricture	4
Mortality	5

bodies in this age group was aspirated while ingestion was commoner in the older age groups. The nature of the foreign body differs as well. In the age group 0-10 years, it was mainly ornamental beads and peanuts, the older ones ingested mainly fish bones and dentures. The inserted foreign bodies seen as emergencies were due to injuries following the insertions and unskilled attempts at removal.

Trauma is very high on the table; the 2nd commonest cause of emergency presentations 30.09%, some other studies found it to be the 3rd commonest<sup>[14]</sup> the ages 21-30 years comprises 10.41% of this. Majority of the trauma cases were seen in the ages from 21 years spanning to 40 years, it is noticed to disappear after age 50 years. This is apparently the age range of active work life, therefore more exposure to potential hazards.

Epistaxis, in this study, even though is seen in the very young age was found more in the age group 31-40 years unlike some researchers that had bimodal presentations<sup>[20,21]</sup> while others found it more in the extremes of age, however, with different a etiological factors in these age groups.<sup>[22]</sup> It accounts for approximately 1 in 200 visits to the Emergency Department,<sup>[22]</sup> however, here it accounts for 9.26% of all emergency presentations.

It was also found that inflammatory/infective conditions constituted like some other researchers also found, the 3rd commonest ORL emergencies.<sup>[23]</sup> However, some found it the commonest<sup>[18,24]</sup> with fb in the second position. In this study, tonsillar infections with its complications as well as corrosive ingestions and burns are all grouped under infections/inflammations.

In an earlier study done in Ibadan Nigeria, there were 20% of the cases found as real emergencies with upper airway obstruction being the commonest presentation. The study, however, was done in the geriatric age group only.<sup>[25]</sup>

The commonest presentation here is respiratory distress from upper airway obstruction, dysphagia/odynophagia,

## DISCUSSION

In this study, even though there were 5660 apparent emergencies, the real emergencies were 2160 representing 38.2% of the total consultations. This gives credence to the observations of some earlier studies that not all the emergencies were found to be urgent cases.<sup>[1,3]</sup> There was a male preponderance similar to findings of farnetip<sup>[14]</sup> unlike others that found more females involved.<sup>[2,15]</sup>

The finding of 38.2% as real emergencies compared to other findings of 62.7% and 61.26%<sup>[16,17]</sup> appears lower, however Rivero *et al.*<sup>[4]</sup> had a similar rate of 30-40% as well as Sanches-Alcon *et al.*<sup>[18]</sup> with 56%. Timsit *et al.*<sup>[3]</sup> has the lowest rate of 10%. These differences we do not have plausible explanation for except that the societies are different as well as the times and exposures.

The age group 0-10 years was found to be most affected comprising 31.02% of all cases seen and foreign body was the commonest form of emergency encountered (41.70%). It is known that this is the age range that is most affected by this condition<sup>[8,19]</sup> most of the foreign

however some studies found sudden hearing loss, pains, and hemorrhage as the most frequent presentation.<sup>[3]</sup>

The commonest investigative tool employed in these conditions was plain X-ray of the lateral soft tissue of the neck done especially in cases of fb and infection/inflammation group of emergencies.

These patients were often managed surgically. Examination under anesthesia, esophagoscopy, tracheostomy, and direct laryngoscopy were commonly done. Tracheostomy was done in majority of the group 0–10 years with foreign body emergencies as well as in all the adults that presented with cut throat injuries. In this very young age even the foreign bodies in the hypopharynx/esophagus especially in the cricopharyngeal part still presented with respiratory distress from upper airway obstruction.

In terms of complications, tracheal stenosis was seen in three cases of cut throat injuries that had damage to their trachea from the injury. There was also a patient that developed aneurysm of the external jugular following gunshot injury to the neck. The five cases of mortality were from foreign body aspirations that presented late (three cases) and died before intervention could be instituted. While the remaining two cases were cut throat injuries that died following complete transection of the trachea and severe sepsis.

The challenges in the management of these patients noted were as follows, absence of fluoroscopy to determine promptly the location of fbs such as dentures. Dependence is on soft tissue signs which sometimes can be unreliable. In children, lack of appropriate sized scopes and grasping forceps can be challenging to the surgeon. Absence of venturi system for bronchoscopic fbs makes removal of such fbs very difficult with attendant dangers of respiratory failure.

## CONCLUSION

ORL emergencies are common. The children are more affected. Prompt diagnosis and appropriate management is necessary so as to reduce morbidity and mortality.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

## REFERENCES

1. Wheatley AH, Temple RH, Camilleri AE, Jones PH. ENT open access clinic: an audit of a new service. *J Laryngol Otol* 1999;113:657-60.
2. Gallo A, Moi R, Minni A, Sumonelli M, Vincentis M. Otorhinolaryngology emergency unit care: the experience of a large university in Italy. *Ear Nose Throat J* 2000;79:155-58.
3. Timsit CA, Bouchene K, Olfatpour B, Herman P, TranBa Huy P. Epidemiology and clinical findings in 20,563 patients attending the Lariboisiere hospital ENT adult emergency clinic. *Ann Otolaryngol Clin Cervicofac* 2001;118:215-24.
4. Rivero VP, Ugena ER, Yanez KT, Fuentes MA, Garcia MM, Ruiz GT. The paper is Descriptive study of 21,804 ENT emergencies in a third level hospital. *Anales ORL Iber Am*.2003;30:237-45.
5. Ibekwe MU, Onotai LO, Nwosu C. Ear, nose and throat injuries in a tertiary institution in Niger delta region Nigeria. *J Med Res Prac* 2012;1:59-62.
6. Sogebi OA, Olaosun AO, Tobin JE, Adedeji TO, Adebola SO. Pattern of ear, nose and throat injuries in children at Ladoko Akintola University of technology teaching hospital, Osogbo, Nigeria. *Afr J Paediatr Surg* 2006;3:61-3.
7. Lopez AM, Garcia SA, Herranz G, Lopez BG, Martinez VJ. Appropriateness of emergency hospital admissions at an ORL service of a third level hospital. *Acta Otorhinolaringol Esp* 1993;44:31-4.
8. Khan AR, Arif S. Ear, nose and throat injuries in children. *J Ayub Med Coll Abbottabod* 2005;17:54-6.
9. Figueriedo RR, Azevedo AA, Kos AO, Tomita S. Complications of ear, nose and throat foreign bodies. *Braz J Otorhinolaryngol* 2008;74:7-15.
10. Gilyoma JM, Chalaya PL. Endoscopic procedures for removal of foreign bodies of the aerodigestive tract: the Bugando medical centre experiences. *BMC Ear Nose Throat Disord* 2011;11:2.
11. Vassiliu P, Baker J, Henderson S, Alo K, Velmahos G, Demetriades D. Aerodigestive injuries of the neck. *AM Surg* 2011;67:75-9.
12. Rathlev NK, Medzon R, Bracken ME. Evaluation and management of neck trauma. *Emerg Med Clin N Am* 2007;25:679-94.
13. Cuchi BA. Urgencias en otorrinolaringologia: estudio etiologico. *An Otorrinolaringol Ibero Am* 1989;16:484-504.
14. Farneti P, Murri D, Pirodda A. Comparison of two different epidemiological profiles of otorhinolaryngology emergencies. *Braz J Otorhinolaryngol* 2014;80:549-50.
15. Kitchner ED, Jangu A, Baidoo K. Emergency ear, nose and throat admissions at korle-Bu teaching hospital. *Ghana Med J* 2007;41:9-11.
16. Santos Cruz de AJ, Maranhao Souza de AA, Rafaella Carusa M, Valeria Romero G, Norma de Oliveira P. Profile of otolaryngology emergency unit care in a high complexity public hospital. *Braz J Otorhinolaryngol* 2013;79:312-16.
17. Furtado PL, Nakanishi M, Rezende GL, Granjeiro RC, Oliveira TS. Clinico-epidemiological analysis of an otorhinolaryngology emergency unit care in a tertiary hospital. *Braz J Otorhinolaryngol* 2011;77:426-31.
18. Sanches-Alcon M, Morera C, Perez-Garrigues H. ENT emergencies in a tertiary hospital. study of frequency and aetiology *Anales ORL Iber Am*.1993;20:235-49.
19. Narula AA, Ahluwalia S. Foreign body in the ear, nose and throat. *Surg J* 2004;8:182-3.
20. Walker TWM, Macfarlane TV, Mcgarry GW. The epidemiology and chronobiology of epistaxis: an investigation of Scottish hospital admissions 1995-2004. *Clin Otolaryngol* 2007;32:361-65.
21. Schlosser RJ. Epistaxis *N Engl J Med*. 2009;360:784-89.
22. Pallin DJ, Chg YM, Mckay MP, Emond JA, Pelletier AJ, Camargo CA. Epidemiology of epistaxis in US emergency departments, 1992 to 2001. *Ann Emerg Med* 2005;46:77-81.
23. Huanq SE, Hunq HY, Wanq JH, Jou WB, Lin WS. An epidemiological study of otolaryngologic emergency diseases. *Zonqhua Yi xue Za Zhi (Taipei)* 1991;4:456-61.
24. Rossel VR, Asensio JR. Urgencias ORL en un hospital comarcal. *Acta otorrinolaringol Esp* 1994;45:41-4.
25. Ibekwe TS, Nwaorgu OG, Onakoya PA, Ibekwe PU. Spectrum of otorhinolaryngology emergencies in the elderly in Ibadan, Nigeria. *Niger J Med* 2005;14:411-4.