

EMERGENCY EAR, NOSE AND THROAT ADMISSIONS AT THE KORLE-BU TEACHING HOSPITAL

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SUMMARY

Background: Ear Nose and Throat (ENT) emergencies are common in all communities. Early diagnosis and prompt management will result in reduction in morbidity and mortality.

Objectives: To assess the size and distribution of ENT emergencies, obtain base line data and outline preventive measures.

Design: Clinical records of patients admitted for ENT emergency care at the Korle Bu Teaching Hospital from 1st January 2000 to 31st December 2002 were studied with respect to sex, age, diagnosis on admission and outcome of emergency care. Exclusion criteria were admissions for terminal cancer care.

Results: A total of 750 patients made up of 476 males and 274 females were admitted for emergency care. The age range was 1 month to 100 years; mean age was 25.5 years and median age was 18.23 years. The commonest causes of emergency admissions were foreign bodies in the oesophagus in 310 (41.3%) patients, epistaxis in 126 (16.7%) patients, throat infections in 118 (15.7%) patients and stridor in 61 (8.1%) patients. Twenty (2.7%) admitted emergencies died.

Conclusion: The commonest causes of ENT emergency admissions were foreign bodies in the oesophagus, epistaxis, throat infections and stridor.

Keywords: ENT, emergency care, oesophageal foreign bodies, throat infections, stridor

INTRODUCTION

Ear, Nose and Throat (ENT) emergencies are common in all communities. Early diagnosis and prompt management will result in reduction in morbidity and mortality. The management of ENT emergencies requires significant financial resources for admissions and surgical interventions. Access to ENT emergency services vary from country to country and are either an open access

ENT emergency clinic where patients do not require a referral to be seen or a referral based ENT emergency clinic where patients are usually seen by general physicians prior to referral. The ENT Unit at Korle -Bu operates a referral based emergency service.

Lopez et al¹ carried out a retrospective epidemiological study of ENT emergency hospital admissions in a tertiary centre and noted that the appropriateness of admissions was highest for foreign bodies and respiratory distress and lowest for cancer.

Timsit et al² also studied the epidemiological and clinical features of patients attending an adult ENT emergency clinic and noted that only 10% of the consultation in the emergency unit appear to be real emergencies and that the most frequent symptom leading to emergency consultation were pain, sudden hearing loss, bleeding and swallowed foreign body.

The ear and nose are in close anatomical proximity to the brain and the nose is also closely related to the orbit. Therefore delayed treatment of infections of the nose and ears may result in intracranial spread or orbital complications leading to high mortality or morbidity. Somnath et al³ in their analysis of a large series of emergency ENT patients reported the commonest causes of mortality as respiratory tract obstruction, intracranial complications of chronic suppurative otitis media and foreign body in the upper aerodigestive tract. Due to limited and overstretched resources for emergency care at the ENT unit of the Korle Bu Teaching Hospital (KBTH) it has become necessary to explore preventive measures.

The objectives of this study were to determine the size and distribution of ENT emergency admis-

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sions at the Korle-Bu Teaching Hospital and to obtain baseline data for subsequent studies; and to identify preventive measures for some ENT emergencies.

PATIENTS AND METHODS

The subjects studied were patients admitted for ENT emergency care under the supervision of five ENT consultants at the Korle Bu Teaching Hospital over a 3 year period from 1st January 2000 to 31st December 2002. Admission records of these patients were studied noting the sex, age, diagnosis on admission, and outcome of emergency care. Exclusion criteria were patients admitted as emergency for terminal cancer care

RESULTS

A total of 750 patients made up of 476 males and 274 females were admitted for ENT emergency care. The male to female ratio was 1.7:1. The age range was 1 month to 100 years with a mean age of 25.46 years. Peak age incidence was 0-9 year age group and median age was 18.23 years. The commonest causes of emergency admissions were foreign bodies in the oesophagus in 310 (41.3%) patients, epistaxis in 126 (16.67%) patients, throat infections in 118 (15.74%) patients and stridor in 61 (8.13%) patients. Impacted coins in the oesophagus occurred in 151 (20.13 %) of patients seen (about 50% of all foreign bodies in the oesophagus) (Table 1).

Other foreign bodies in the oesophagus included piece of stick, metals, cola nut, pegs, chicken bones, meat bones and metal ring. Other causes of ENT emergency admissions included neck abscesses, orbital cellulites, acute vertigo, bleeding tonsillar mass, bleeding lingual mass and trauma to the head and neck (Table 1). Twenty of the 750 patients. The mortality rate for these emergency admissions excluding terminal head and neck cancer was 2.7%.

The causes of death for emergency ENT admissions were from epistaxis in 4 (20%) patients, deep abscess of the neck in 4 (20%) patients, acute epiglottitis in 2 (10%) patients, intracranial complications of acute rhino sinusitis in 2 (10%) patients and upper airway obstruction in 2 (10%) patients (Table 2)

DISCUSSION

The mean age of 25.5 years was lower than 31.8 years noted by Herve *et al*⁴. This lower mean age and a median age of 18.23 years from our study

Table 1 Causes of E. N.T. emergencies

Diagnosis	No. of Patients	Percent %
Foreign bodies (FB) in oesophagus		
Coins	151	20.13
Fish bone	56	7.47
Denture	25	3.33
Other foreign bodies	27	3.6
F.B. not specified	51	6.8
Epistaxis	126	16.67
Throat infections		
Retropharyngeal abscess	6	0.8
Acute epiglottitis	11	1.47
Parapharyngeal abscess	6	0.80
Pharyngolaryngitis	5	0.67
Tonsillitis	61	8.1
Peritonsillar abscess	29	3.87
Stridor	61	8.13
Foreign body in the ear	22	2.93
Dysphagia	20	2.67
Foreign body in the airway	17	2.27
Oral infections	15	2.0
Ear infections		
Mastoid abscess	1	0.13
Perichondritis	2	0.27
Retroauricular abscess	3	0.4
Infected preauricular abscess	2	0.27
Mastoiditis	1	0.13
Acute suppurative otitis media	1	0.13
Infections of nose and paranasal sinuses		
Frontonasal abscess	2	0.27
Sinusitis	5	0.67
Septal abscess	1	0.13
Orbital cellulitis	4	0.54
Foreign body in nose	7	0.93
Other causes	32	4.32
TOTAL	750	100

Table 2 Causes of mortality in ENT emergency admission

Causes of Mortality	No. of Patients
Epistaxis	4
Deep abscess of head and neck	4
Acute epiglottitis	2
Intracranial complications of rhinosinusitis	2
Upper airway obstruction	2
Cause not specified	6
Total	20

was due to the very large number of children who were admitted as ENT emergencies on account of coins in the oesophagus. The predisposing factors to this paediatric problem are poor parental care or attention and easy accessibility of coins by children in Ghana.

The commonest causes of ENT emergency admissions in our series were foreign bodies in the oesophagus, epistaxis, throat infections, and stridor. Impacted coins accounted for 50% of all esophageal foreign bodies. Our findings contrast the published series by Perez et al⁵ where the commonest causes of admissions were epistaxis, otitis media and otitis externa. Our findings also contrast other published series by Timsit et al² where the commonest causes of ENT admissions were epistaxis, peritonsillar abscess and sudden hearing loss. The difference between our findings and the published series is due to the major contribution of foreign bodies in the oesophagus which accounted for 41% of the ENT emergencies seen. The difference may also reflect differences in the socio-economic and cultural environment of the patients studied. Our study was carried out on patients in a developing country whereas the published series were on patients in the advanced countries. Foreign bodies in the airway and impacted coins in the oesophagus were preventable causes of emergency admissions accounting for about one third of the ENT emergencies seen. Our efforts at reduction of these preventable emergencies should be directed at health education through television and radio programmes and health talks at child welfare clinics in the community on the need to keep coins out of the reach of children and urgent need for good parental care.

The commonest causes of mortality in the ENT emergency admissions were epistaxis, acute epiglottitis and intracranial complications of rhino sinusitis. The commonest causes of mortality in our study differs from the findings of Somnath et al³ who reported from the analysis of very large number of emergency ENT patients (15,317) that the commonest causes of mortality in their series were respiratory tract obstruction, intracranial complications of chronic suppurative otitis media and foreign bodies in the upper aerodigestive tract. Our mortality rate of 2.7% is higher than 0.31% quoted by Somnath et al³ in their large series. The relatively high mortality rate in our study may be related to late reporting due to delayed referral by primary care physicians or alternate medical practitioners and inaccessibility to ENT services.

Wheatley et al⁶ noted that 75% of ENT emergency consultations were suitable for waiting until the next day. Similar observations were made by Gallo et al⁷ who noted that 87.5% of emergencies seen in an open access ENT emergency clinic did not actually qualify as emergencies. The experience of these two workers demonstrates the set back of

open access ENT emergency clinics. Our study did not look at appropriateness of emergency consultations as most cases seen were referred by the general physician. The ENT emergency work load can be reduced by preventive measures.

CONCLUSION

Common causes of ENT emergency admissions are foreign bodies in the oesophagus, epistaxis, throat infections and stridor.

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