Otorhinolaryngological Trauma in Private Health Facilities in Benin City

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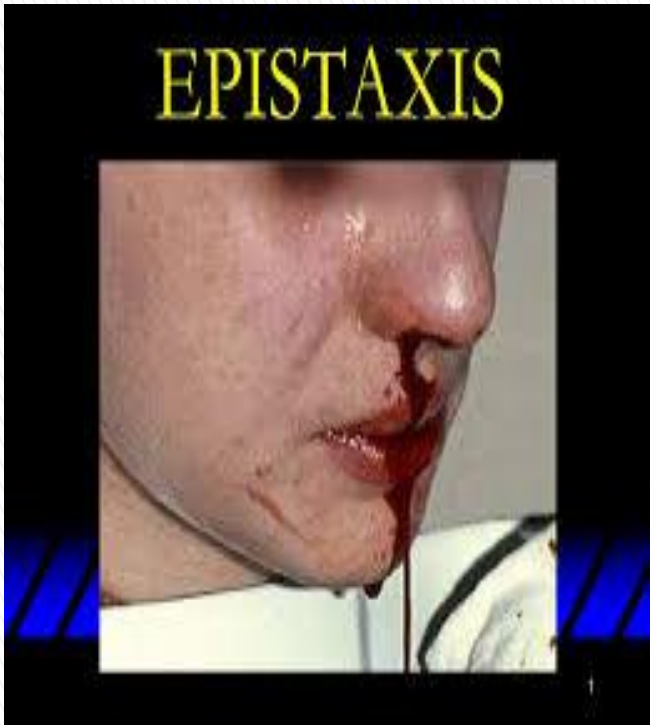


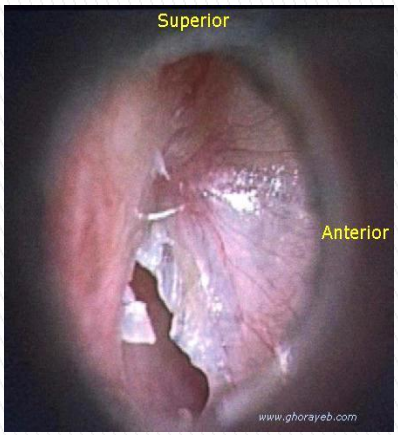
INTRODUCTION

- Otorhinolaryngological trauma is common in clinical practice.
- The disaster caused by otorhinolaryngological trauma arises from its morbidity and mortality.
- This is due to increased cost of care and varying degree of physical, cosmetic and functional disfigurement. [1, 2]

AIM

To determine

- the causes,
- mechanism of trauma and
- outcome of these injuries in the private health setting and
- proffer possible preventive measures



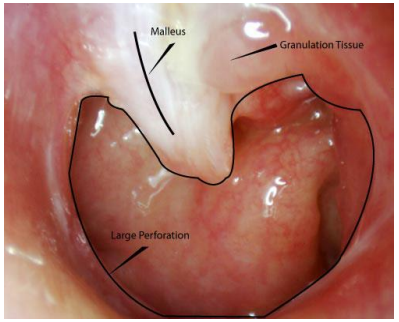
METHOD

- A one-year prospective descriptive study

(of patients with otorhinolaryngological trauma managed at the private health settings in Benin City).

- Ethical clearance; permission ;Consent

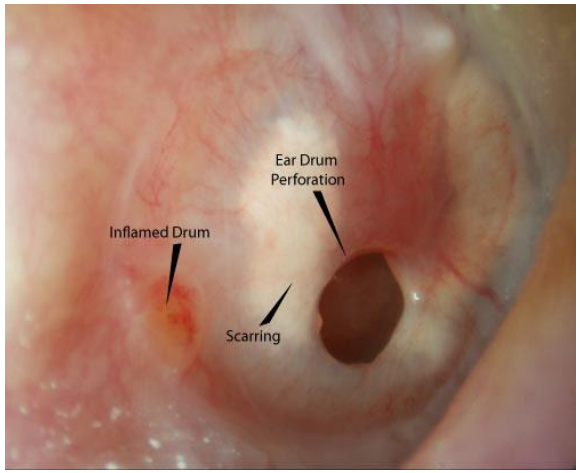
- All consecutive trauma patients seen from May 2016 to April 2017 constituted the sample size.



- Total population sampling technique.

- History, General examination,

METHOD



- ENT H/N examinations
- Minor trauma----Out patients Rx
- Moderate to Severe -----Ward admission
  (Life threatening or Impending Complications)
- Further evaluated and managed
  accordingly.---Interval clinic Appointments / Daily ward rounds
- Statistical analysis (SPSS version 20.0)
- ($p < 0.05$ statistically significant)
- *Results : Tables and Figures

SOCIODEMOGRAPHICS

Age (yrs)	HOPE HOSPITAL (N/%)	ECHOS HOSPITAL (N/%)	JUNO MEDICAL CENTRE (N/%)	Total (N/%)
1 -10	3 (100.0)	-	-	3 (100.0)
11 – 20	4 (80.0)	1 (20.0)	-	5 (100.0)
21 – 30	3 (50.0)	2 (33.3)	1 (16.7)	6 (100.0)
31 – 40	7 (77.8)	2 (22.2)	-	9 (100.0)
41 - 50	3 (100.0)	-	-	3 (100.0)
51 – 60	-	-	-	
61 – 70	1(100.0)	-		1 (100.0)
71 – 80	4 (100.0)	-		4 (100.0)
TOTAL	25 (80.6)	5 (16.1)	1 (3.2)	31(100)

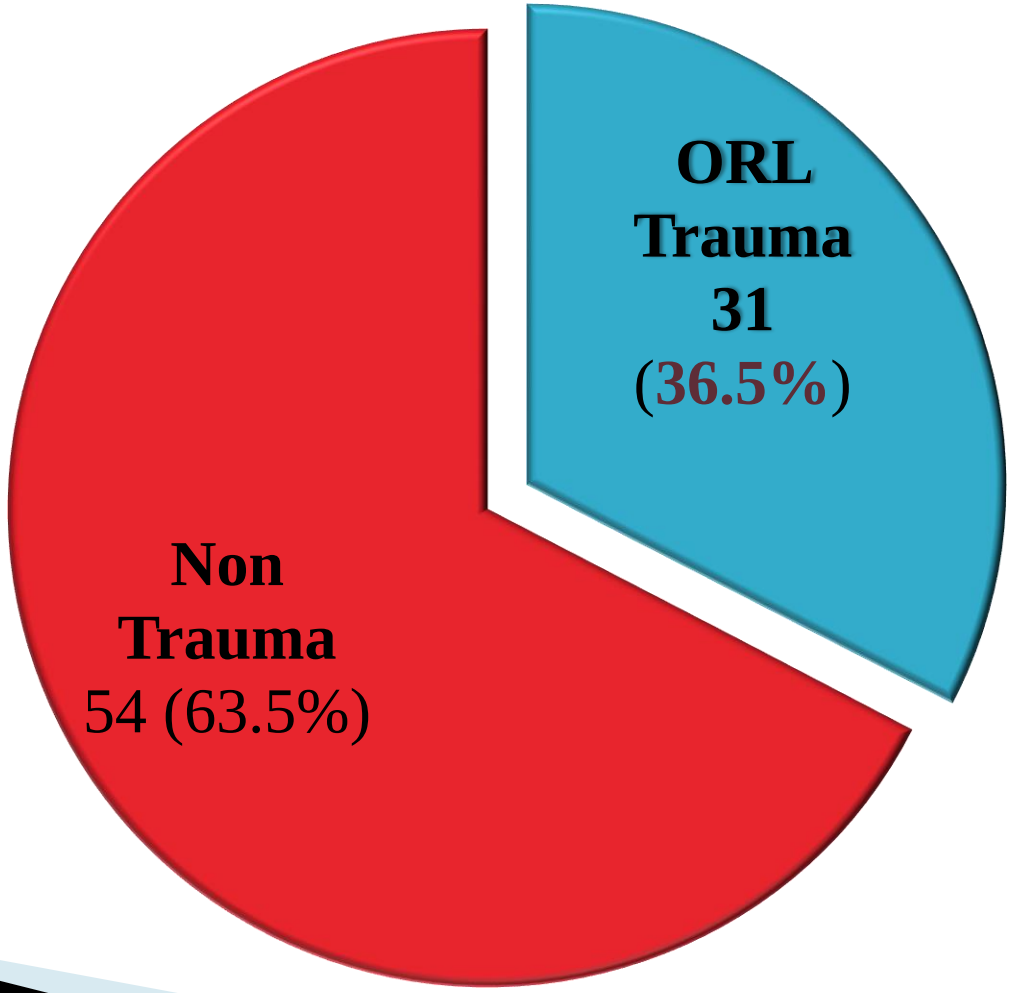
Mean age = 35yrs , p = 0.813

TABLE 2 :GENDER

Sex	N (%)
Male	16 (100.0)
Female	15 (100.0)
Total	31 (100.0)

p = 0.333

Prevalence of Otorhinolaryngological (ORL) Trauma (N = 85)



Association Of Age And Site Otorhinolaryngological Trauma

Age (yrs)	EAR (N/%)	NOSE (N/%)	LARYNX (N/%)	NECK (N/%)	Total (N/%)
1 -10	2 (66.7)	1 (33.3)	-	-	3 (100.0)
11 – 20	5 (100.0)	-	-	-	5 (100.0)
21 – 30	4 (66.6)	1 (16.7)	-	1 (16.7)	6 (100.0)
31 – 40	9 (100.0)	-	-	-	9 (100.0)
41 - 50	2 (66.7)	-	1 (33.3)	-	3 (100.0)
51 – 60	-	-	-	-	
61 – 70	1 (100.0)	-	-	-	1 (100.0)
71 – 80	2(50.0)	2 (50.0)	-	-	4 (100.0)
TOTAL	25 (80.6)	4 (13.0)	1 (3.2)	1 (3.2)	31(100)

p = 0.338

Association Of Sex And Site of Otorhinolaryngological Trauma

N =31

SEX	EAR*(N/%)	NOSE*(N/%)	LARYNX (N/%)	NECK (N/%)	Total (N/%)
MALE	14 (87.5)	2 (12.5)	-	-	16 (100.0)
FEMALE	11 (73.3)	2 (12.5)	1 (6.3)	1 (6.3)	15 (100.0)

p = 0.378

Cause of Trauma	Mechanism of trauma	Ear (N/%)	Nose (N/%)	Throat (Larynx, Neck) (N/%)	Total (N/%)
Cotton bud	TM* perforation, laceration, inflammation,	15(48.4)	-	-	15(48.4)
Foreign bodies	laceration, Nasal blockage	3(9.7)	1(3.2)	-	4 (12.9)
Iatrogenic	Perforation, Inflammation	1(3.2)	-	2(6.5)	3(9.7)
Gun shot	Shearing force, laceration	1(3.2)	1(3.2)	-	2 (6.5)
Slap	Blunt trauma	2(6.5)	-	-	2 (6.5)
Assault (Blow)	Blunt trauma	2(6.5)	-	-	2 (6.5)
Nose picking	Laceration, Vascular rupture	-	2(6.5)		2(6.5)
Domestic accident	Sharp Pointed object causing TM*perforatoin	1(0.7)	-	-	1(3.2)
Total	-	25 (80.6)	4(12.9)	2 (6.5)	31(100)

CAUSE , MECHANISM CONT'D

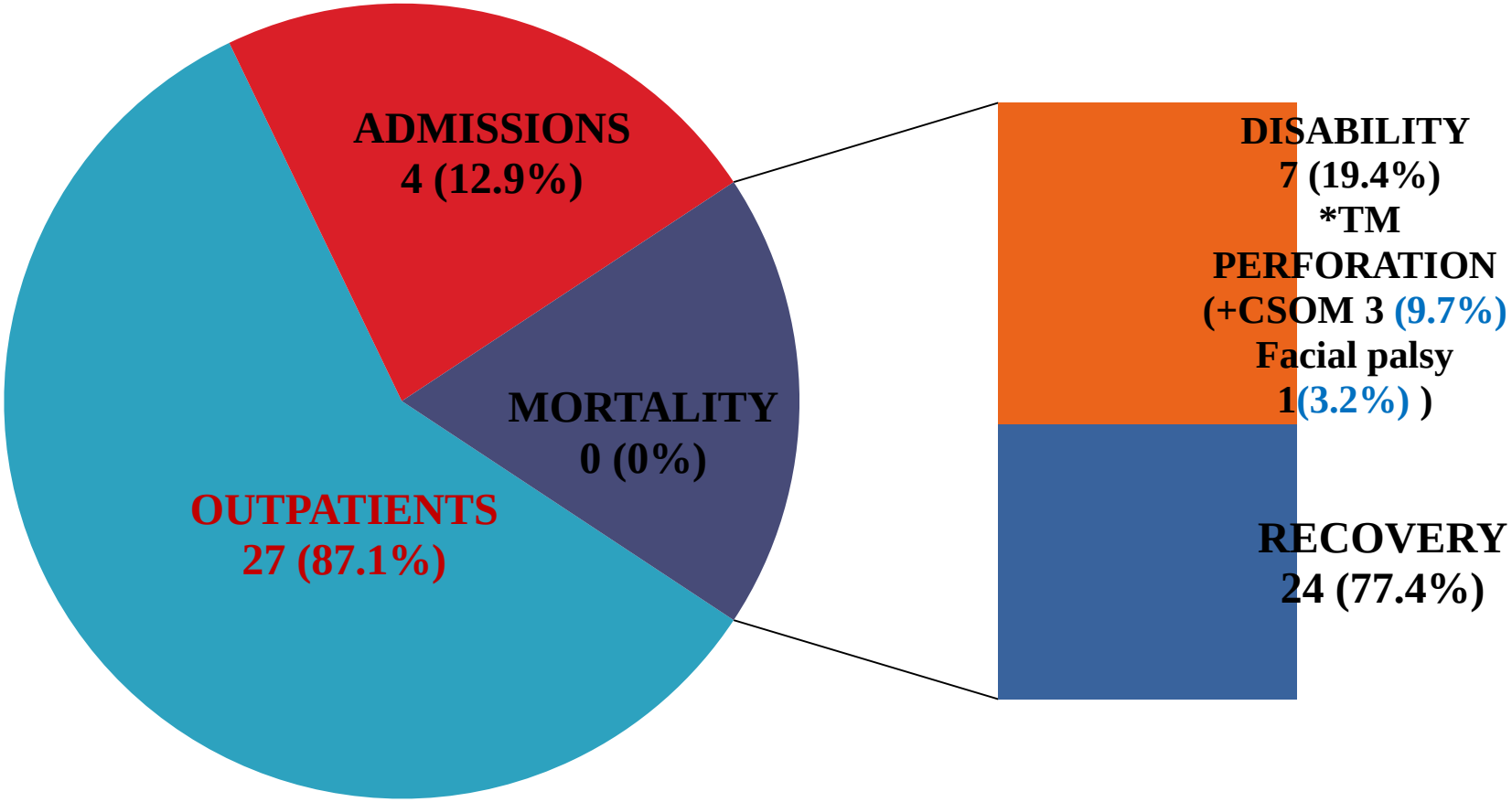
- **Iatrogenic → (Foreign body removal,**
  Total thyroidectomy,
  Dental extraction)

Anatomical site	Clinical presentation	Frequency	Percentage
Ear	Foreign body insertion	3	4.8
	Hearing loss	11	17.7
	Otalgia	10	16.1
	Mucopurulent discharge	11	17.7
	Tinnitus	4	6.5
	Vertigo	1	1.6
	Lacerations	6	9.7
	Bleeding	4	6.5
	Aural fullness	5	8.1
Nose	Foreign body insertion	1	1.6
	Epistaxis	2	3.2
	Foul smelling nasal discharge	1	1.6
Throat (Larynx / Neck)	Stridor	1	1.6
	Low pitched voice	1	1.6
	Swollen neck	1	1.6
Total		62	100.0

Anatomical site	Complications	Frequency	Percentage
Ear	Otitis externa	2	5.0
	Chronic suppurative otitis media	11	27.5
	Sensorineural hearing loss	3	7.5
	Labyrinthitis	1	2.5
	Furunculosis	1	2.5
	Perforated tympanic membrane	**15**	**37.5**
	Keratosis obturans	1	2.5
	Facial palsy	2	5.0
Nose	-	-	-
Throat	Trismus	1	2.5
	Low-pitched voice	1	2.5
	Recurrent laryngeal nerve palsy	1	2.5
	Ludwig's Angina	1	2.5
Total		40	100.0

Treatment modality	Frequency	Percentage
Foreign body removal	4	5.7
Surgical wound debridement/wound dressing	1	1.4
Nasal packing	2	2.9
Ear toileting	13	18.6
Daily Ear dressing	11	15.7
Ear Syringing	1	1.4
Keep ear dry	25	35.7
Facial physiotherapy	2	2.9
Voice rest and rehabilitation	1	1.4
Antibiotics	6	8.6
Vestibular decongestants	1	1.4
Anti-inflammatory	3	4.3
Total	70	100.0

TREATMENT OUTCOME

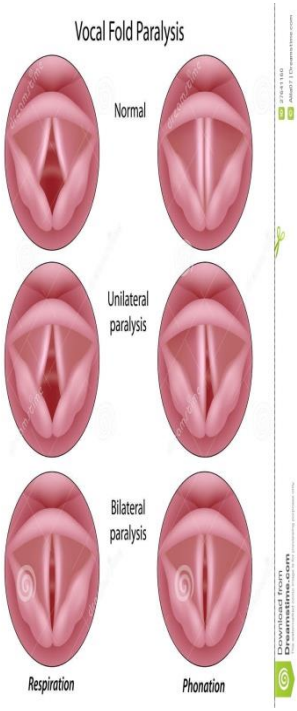


- *TM => Tympanic membrane
- +CSOM => Chronic suppurative otitis media

DISCUSSION

Prevalence of Otorhinolaryngological trauma

- **36.5% %.....Index study**
- **5.3%.....Sogebi et al (2006)**



Commonest site

- **Otologic ---- 80.6--- Index study**
- **Otologic…** 48.7%..... **Aremu et al, 2011**
- **Otologic ..59.0%----**Gilyoma --2013
- Nose……50%.... **Arif Raza Khan (1977)**

DISCUSSION

Commonest cause

- Cotton Bud… **48.4%**..Index study

  →**TM perforation**, complications

  Life threatening CSOM (intracranial abscess)

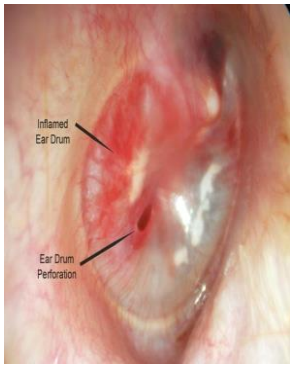
  Meningitis

- Foreign bodies….. 61.8%.. Gilyoma --2013

  …….29.5% Aremu 2011

- Fall..... **Arif Raza Khan 2003**

- ******Least Cause –sharp pointed objects**



DISCUSSION

- IATROGENIC…ear…**3.2%,..6.5%....throat..Index study (facial nerve palsy, recurrent / Sup. Laryngeal palsy)**

- Nose 0.4% and throat1.1%.... Gilyoma --2013

CONCLUSION/ RECOMMENDATION

- Otorhinolaryngological trauma causes significant morbidity
- The key to its prevention is prompt referral to trained specialist and participation in otorhinolaryngological public enlightenment programmes.

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THANKS FOR LISTENING!