Management challenges of Congenital & Early Onset Childhood Hearing Loss in a Sub-Saharan African Country.

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Introduction

- The burden associated with hearing impairment is more in SSA [1- 3]
- There are many pressing health concerns & paucity of funds [2 -4]
- There is generally lack of awareness[2]
  - late presentation
  - delay early intervention strategy

Aim & Methods

- This study - highlighted major challenges in the management of childhood HI

Methodology:

- Retrospective descriptive study (January 2008 - December 2013).
- PTA, Free field audiometry and ABR evaluations
- Statistical analysis was performed with SPSS version 14

Results & Discussion

- Data of 223 children were included in the study.
- There were 124 (55.6%) males and 99 females (M: F of 1.3: 1).
- The ages of the patients ranged from 1 to 15 years with a mean ± SD of 6.39 ± 4.368

Table 1: Age and gender distribution

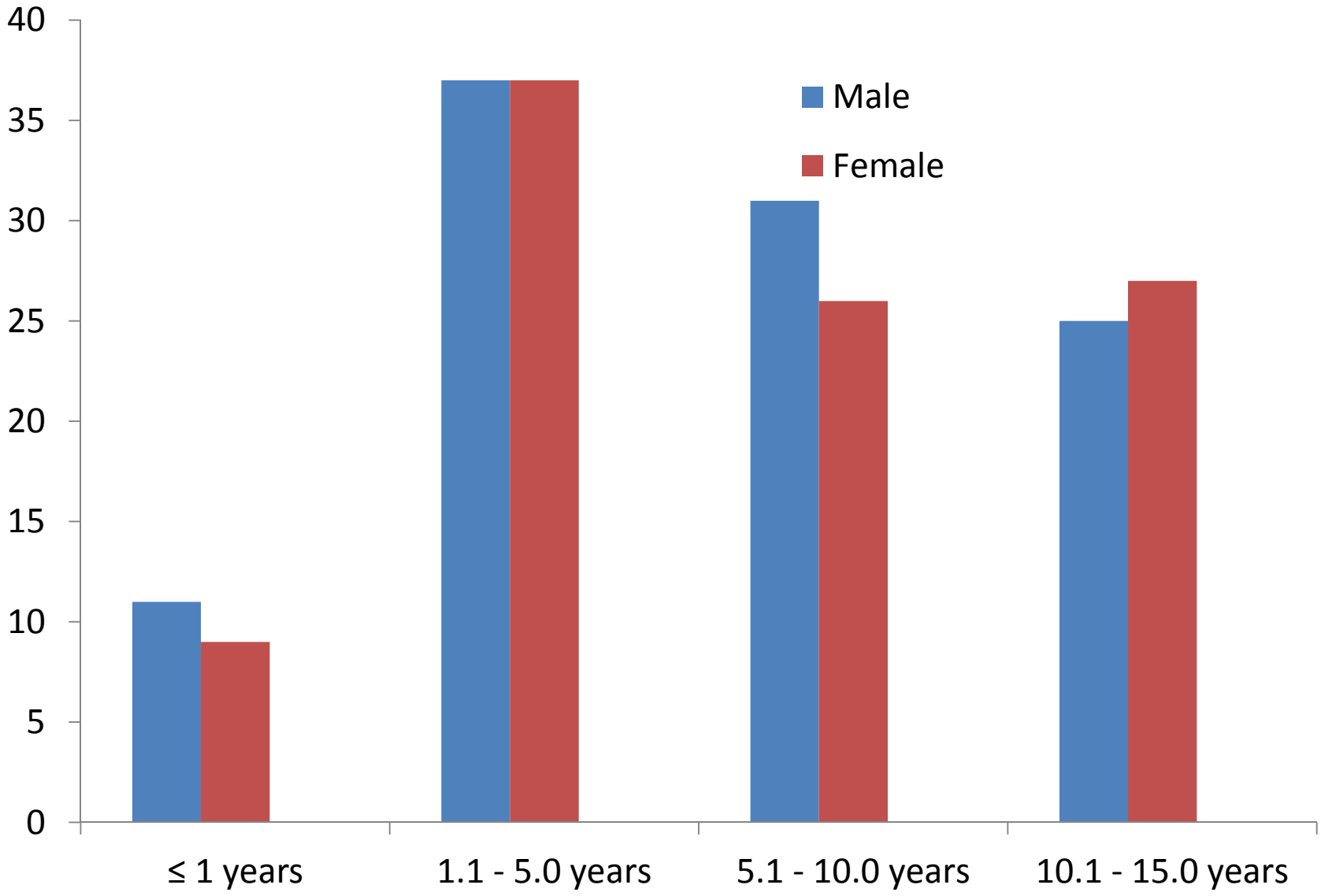
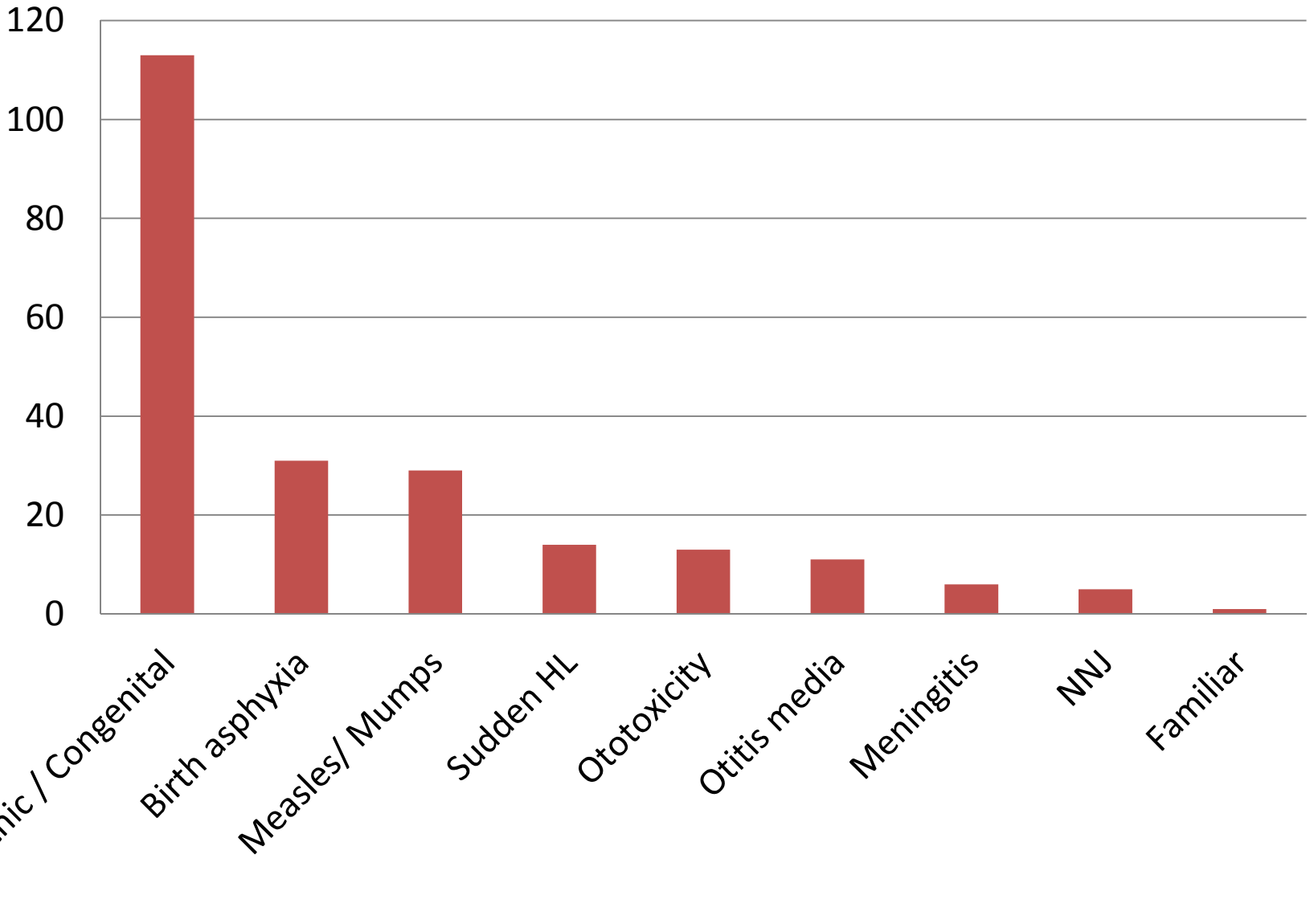
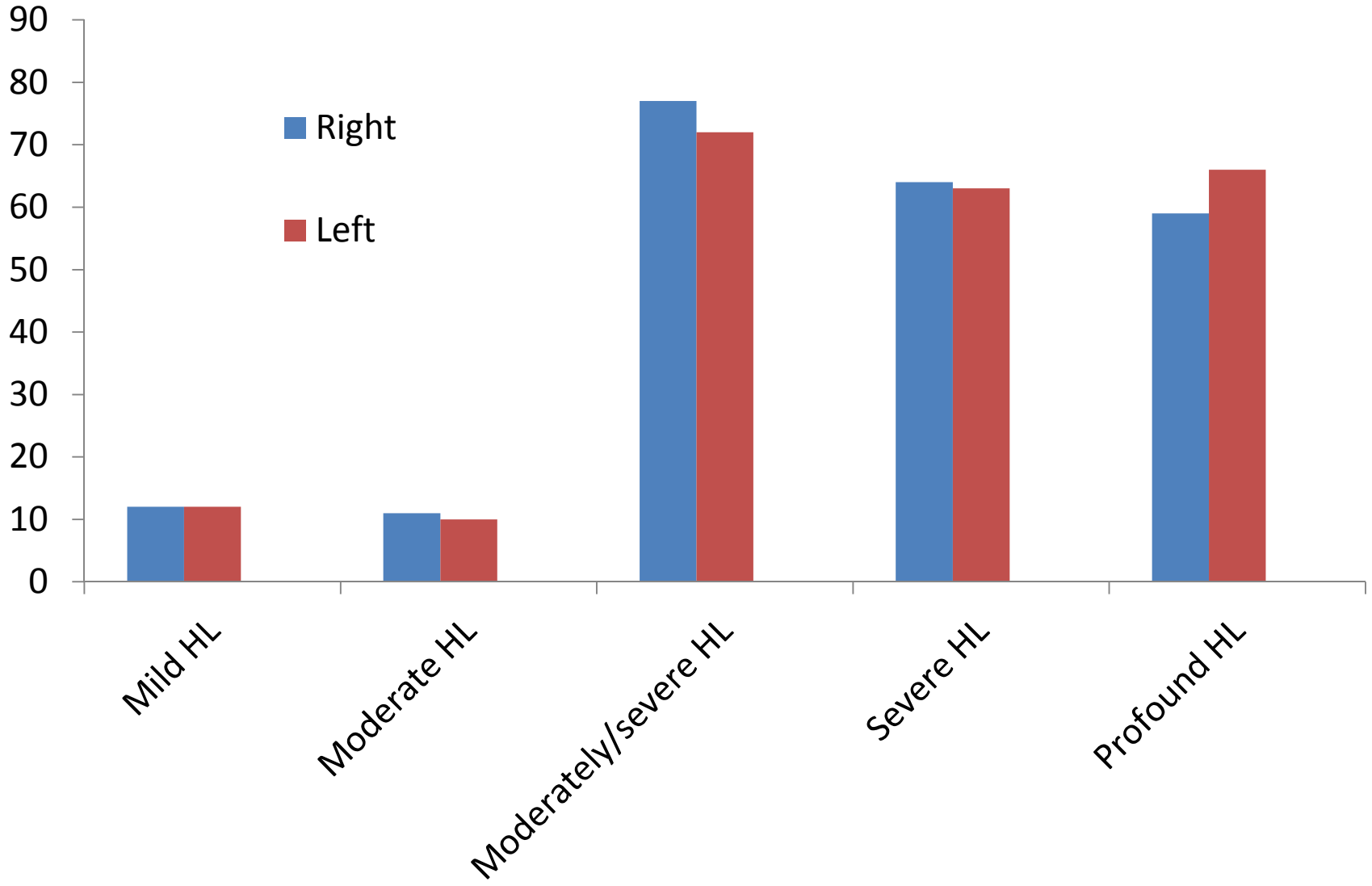


Figure 1: Probable causes of HL



- Preventable causes are very prevalent (48.9%)[4].
- Some cases of idiopathic/ congenital HL might be genetic.
- Genetic screening is not yet readily available in our center.

Fig 2: Audiometry pattern (right & left ears)



- over 94% had educationally significant HI.

- This proportion is much higher than findings of previous researches [4, 6 - 8].

- Highest proportion of developmentally disadvantaged children SSA [6, 7, 9].

Table 2: Time of presentation in congenital/perinatal) HL

Time of presentation	Number (%) (N = 151)	Chi square	P - value
1st year	25 (16.6)		
2nd year	29 (19.3)	40.648	0.001
2nd – 5th year	34 (22.7)		
> 5 years	63 (41.3)		

Association between diagnosis & speech ($X^2 = 2.688$, $p = 0.000$)

Diagnosis	Effect on speech			Total
	Normal	Delayed	Peri/post lingual impairment	
Congenital, Asphyxia, NNJ	2	143	6	151
Ototoxicity, Measles, Mumps, Meningitis	18	1	43	62
Others	10	-	-	10
Total	30	144	49	223

- Effect on speech, language & cognition is more developing countries [2 - 5].

- Majority had presented to primary care physicians

  - Poor public and health care worker awareness[2]

- The greatest challenge is late presentation [2, 4].

- Inadequate facilities and personnel

- Ten patient had hearing aid fitted.

- Poor access/high cost of hearing aid services[5]

- Stigma among the mothers

Challenges

- Profoundly deaf were referred for cochlear implantation.
- There had been collaboration between international donor agents and personnel [10, 11].
- Routine screening for childhood hearing loss is still rare in Nigerian [6 - 9]

Conclusion

- The burden of congenital and early onset HI is high in SSA.
- Majority of the causes are preventable
- Most present with significantly HL that will require sound amplification.
- Most patients usually present late
- Management is hampered by the lack of screening, diagnostic and rehabilitative equipment.
- Dearth of appropriate personnel

Recommendations

- Developing countries must recognize the significance of childhood hearing loss
  - Allocate resources to promote its prevention.
  - There is a need for increased awareness.
  - Early hearing should be implemented
  - rehabilitative facilities
- More research is needed to facilitate appropriate diagnosis
- Need for collaboration with developed countries.

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