

Otologic Disorders in Children: Our Experience in a Private Hospital Setting in Port Harcourt, Nigeria.

ABSTRACT

Background: Otologic disorders have been found to be important health problems among children Worldwide. This study was done to establish the pattern of otologic disorders in children as seen in a private hospital setting in Port Harcourt Nigeria and to suggest measures to curb the menace posed by these diseases.

Patients and Methods: A prospective study of all children seen with otologic disorders in Kinx Medical Consultant clinic located in Port Harcourt, Rivers State, Nigeria over a 2 years period from January 2013 to December 2014. The following patients' data were documented in a proforma and analyzed for age, gender, investigation results, diagnosis and treatment modalities. The data were entered into SPSS version 16 computer software and analyzed descriptively.

Results: A total of 85 patients presented with otologic disorders out of a total number of 650 cases seen in the clinic during the period of study, giving a prevalence of 13.08%. There were 35 males and 50 females giving M: F ratio of 1: 1.4. The age range was 6 months to 17 years with mean of (2.4 ± 1.6) years. The age range 2-4 years accounted for majority of the cases 35 (41.18%). Chronic Suppurative Otitis Media was the commonest condition seen 30 (35.29%), followed by hearing loss 15 (17.65%) and otomycosis 15 (17.65%). The commonest mode of treatment was conservative medical treatment 50 (58.8%). The patients with hearing loss were further sent for more audiological assessment in centres that have the appropriate facilities to carry out complete audiological assessment

Conclusion: Chronic suppurative otitis media was the commonest otologic disorder found among children in our series. Meanwhile, conservative medical treatment was the commonest

28 mode of treatment. It is important to put some effort into the training of otologists, provide all
29 the relevant surgical equipments as well as carry out otologic health education by embarking
30 on public enlightenment campaigns targeting parents and guardians.

31 **KEY WORDS: Otologic disorders, chronic suppurative otitis media, conservative**
32 **medical treatment, hearing loss, otomycosis.**

33 **INTRODUCTION**

34 Children form a bulk of patients seen by otolaryngologists across the globe [1]. In Nepal
35 26.7% of Otolaryngologic cases seen in a tertiary health facility in Nepal were between the
36 ages of 1-16 years [1]. In Ibadan South Western Nigeria 41% of cases seen by Fasunla et al
37 were in children less than 15 years old [2]. Otologic disorders ranked highest in children in
38 most studies carried out by many researchers especially within the Sub Saharan African
39 region [2-5]. No doubt otologic disorders are major public health concern due to their
40 associated morbidity and mortality more so in the developing nations [5-7].

41 The otologic diseases cause significant discomfort and hearing loss both in children and
42 adult. In children, speech developmental delays and academic failure may result [8, 9].
43 Complications such as deafness, meningitis, brain abscesses, and facial nerve paralysis may
44 also occur and hence proper management of ear disease is critical in all patients [10].

45 A large percentage of children with otologic disorders especially those in rural and semi
46 urban areas may not have access to an otolaryngologist because of the dearth of this group of
47 specialists within the Sub Saharan Africa. A literature check in our setting revealed paucity
48 of information on otologic disorders among children. Therefore, this study was done to
49 establish the pattern of otologic disorders in children as seen in a private hospital setting in
50 Port Harcourt Nigeria and to suggest measures to curb the menace posed by them.

51 **PATIENTS AND METHODS**

52 A prospective study of all children seen with otologic disorders in Kinx Medical Consultant

53 clinic located in Port Harcourt, Rivers State, Nigeria over a 2 years period from January 2013
54 to December 2014. The following patients' data were documented in a proforma and
55 analyzed for age, gender, investigation results, diagnosis and treatment modalities. The data
56 were entered into SPSS version 16 computer software and analyzed descriptively.

57 **RESULTS**

58 A total of 85 patients presented with otologic disorders out of a total number of 650 cases
59 seen in the clinic during the period of study, giving a prevalence of 13.08%. There were 35
60 males and 50 females giving M: F ratio of 1: 1.4. The age range was 6 months to 17 years
61 with mean of (2.4 ± 1.6) years (Table 1). The age range 2-4 years accounted for majority of
62 the cases 35 (41.18%). Chronic Suppurative Otitis Media was the commonest condition seen
63 30 (35.29%), followed by hearing loss 15 (17.65%) and otomycosis 15 (17.65%) (Table 2).
64 The commonest mode of treatment was conservative medical treatment 50 (58.8%) (Figure
65 1). The patients with hearing loss were further sent for more audiological assessment in
66 centres that have the appropriate facilities.

67 **TABLE 1: AGE RANGE OF PATIENTS**

AGE (YEARS)	NUMBER	PERCENTAGE (%)
< 2	20	23.53
2 - 4	35	41.18
5 - 7	10	11.76
8 - 10	8	9.41
11 - 13	4	4.71
14 - 15	6	7.06

> 16	2	2.35
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69 **TABLE 2: OTOLOGIC DISORDERS**

OTOLOGIC DISORDER	NUMBER	PERCENTAGE (%)
CHRONIC SUPPURATIVE OTITIS MEDIA	30	35.29
CERUMEN AURIS	10	11.76
FOREIGN BODY IN THE EXTERNAL AUDITORY CANAL	10	11.76
OTOMYCOSIS	15	17.65
ACUTE OTITIS EXTERNA	5	5.88
HEARING LOSS	15	17.65

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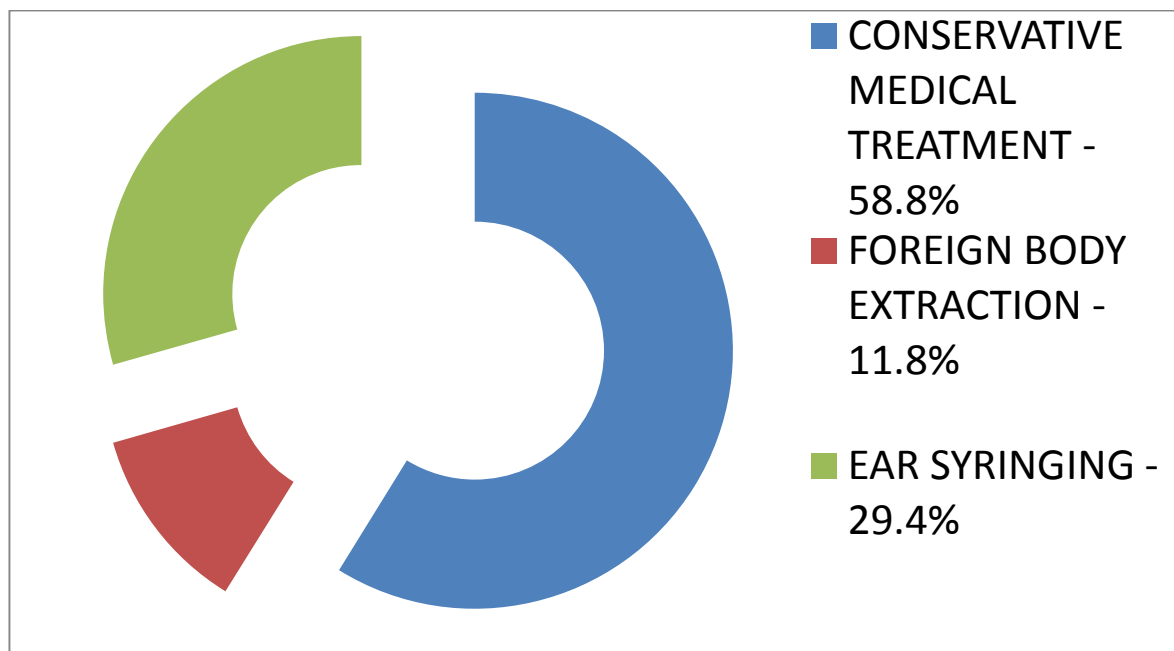


FIGURE 1: MODE OF TREATMENT

DISCUSSION

Prevalence of otologic disorders in this study is 13.08%. This is much less than 57.84% gotten in Nepal [1] and 33.9% gotten by Akinpelu and Amusa in Nigeria [2]. The lower prevalence gotten in this study may be as a result of the smaller sample size used in this study. Moreover, most of our patients were from the urban areas since Port Harcourt is a cosmopolitan city as against other studies done that had most of their patients from the rural areas and semi urban areas [1, 4].

This study showed a slightly female preponderance which is at variance with the male preponderance observed by Nepali and Sigdel in Nepal [1] and Akinpelu and Amusa in Ile-Ife in Nigeria [6]. The commonest age group affected was 2 to 4 years which accounted for 41.18% of otologic disorders. This is similar to the work of Akinpelu and Amusa [6] where they found children less than 5 years of age to be more affected with otologic disorders.

The commonest otologic disorders seen in this study was chronic suppurative otitis media (35.29%) followed by hearing loss and otomycosis. This agrees with the work done by

87 Akinpelu and Amusa [6] who found chronic suppurative otitis media to be commonest with a
88 prevalence of 33.9%. Furthermore, Ilechukwu et al in Enugu and Singh and Kumar in India
89 also found otitis media to be the most commonly diagnosed ailment affecting the ears in
90 children [5, 7].

91 However, our study differs from the works of Ahmed et al in North-Western Nigeria [3].
92 Nepali and Sidgel in Nepal [1] and Adhikari et al in kathmandu Valley [4]. who found
93 Cerumen Auris to be the commonest otologic disorder with a prevalence of 69.1%, 40.9%
94 and 60.6% respectively.

95 A study done by Ologe et al in rural school children between 6-14 years of age group in
96 Nigeria and that done by Shankar et al also showed high prevalence of chronic otitis media
97 [11,12]. In fact, chronic suppurative otitis media is about the commonest condition seen in
98 the otorhinolaryngologic (ORL) clinic in Nigeria according to the findings of Ogisi and
99 Osammar in 1982 and Bhattia and Varursheje in 1987 [13,14].

100 The importance of early diagnosis of otologic diseases cannot be over emphasized. Several
101 researchers have documented that early detection and timely treatment of otologic disorders
102 in patients particularly poor and illiterate ones may prevent life-threatening complications
103 and reduce the burden of the disease [8-12, 15, 16]. However, we did not find complications
104 in our patients.

105 Conservative Medical treatment was the commonest mode of treatment used in the
106 management of the children with otologic disorders in our series. This mode of treatment was
107 also found to be the predominant mode of treatment by other researchers [2, 3, 15]. The
108 paucity of otologic surgeries can be blamed on lack of relevant equipments such as operating
109 microscopes, microsurgical instruments and the expertise to carry out otologic surgeries [15].

110 **CONCLUSION**

111 Chronic suppurative otitis media was the commonest otologic disorder found among children

in our series. Meanwhile, conservative medical treatment was the commonest mode of treatment. It is important to put some effort into the training of otologists, provide all the relevant surgical equipments as well as carry out otologic health education by embarking on public enlightenment campaigns targeting parents and guardians.

Ethical approval:

Ethical approval was sought from the authorities in the community the hospital is situated

Consent Disclaimer:

As per international standard, informed written consent was obtained from the parents and guardians of the children and preserved by the author(s).

No conflict of interest

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