



Review Article

Ear, nose and throat disorders in pediatric patients at a rural hospital in Senegal

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ARTICLE INFO

Article history:

Received 25 November 2016

Received in revised form

15 February 2017

Accepted 16 February 2017

Available online 21 February 2017

Keywords:

ENT disorders

Pediatric

Rural

ABSTRACT

Introduction: The main health problems encountered in pediatric population in Senegal are low birth weight malnutrition and infection. However, there is a lack of data on pediatric ENT diseases from west african population. This is no published data on any research work on pattern ENT pediatric done in Senegal. This study aimed at determining the pattern of common pediatric ENT diseases.

Patients and methods: This was a retrospective descriptive study involving review of medical record of patients aged 0–16 years who presented ENT diseases from April 2011 to May 2013 (2 years).

Results: within the study period a total of 1329 children were seen. We found 696 children male and 633 female, sex ratio (M/F) is 1.1. Mean age of patients seen was 06 years. Nasal disorders (54,6%) were found to be the commonest group of ENT, followed by ear disorders (22,8%) throat (22,7%). Hypertrophic adenoid (27,9%) allergic rhinitis (22,9%) and pharyngitis (17,7%) are the most common ENT problems in our pediatric population.

Conclusion: The main health problems encountered in pediatric population in Senegal are low birth weight malnutrition and infection. This study indicated hypertrophic adenoid (27,9%) allergic rhinitis (22,9%) and pharyngitis (17,7%) are the most common ENT problems in our pediatric population. However, this study can provide basic data for health plan and future local research work.

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<http://dx.doi.org/10.1016/j.ijporl.2017.02.019>

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1. Introduction

The main health problems encountered in pediatric population

in Senegal are low birth weight malnutrition and infection. However, there is a lack of data on pediatric ENT diseases from west African population. This study aimed at determining the pattern of common pediatric ENT diseases.

2. Material and methods

This was a retrospective descriptive study involving review of medical record of patients aged younger 16 years who presented ENT diseases from April 2011 to and May 2013. The records were reviewed for the period. The study was conducted at Department ENT, Head and Neck Surgery Saint Louis hospital, it located in the north of Senegal. The information included demographic data (age, sex) and the clinical diagnosis. Data was collected using EXCEL^R 2007 for analysis with Epi Info version 3.1 software. Results are expressed in numbers and percentage.

3. Results

During the study period 5634 patients with ENT diseases were registered in our ENT department. Out of which 23,5% (1329) were under 16 years. Majority of them were males, while females were, sex ratio was 1.2. The mean age of the patients was 06 years (eart type: 4,6). Nasal disorder (49,8%) were found to be the commonest group of ENT, followed by ear disorders (22,8%) and thorat (22,7%). Most common ENT disease seen were adenoid hypertrophy (27, 3%) followed allergic rhinitis (22%) and tonsillitis (17,3%) [Table 1](#). The commonly diagnosis in relation to year is shown in [Table 2](#).

4. Discussion

This study indicated hypertrophic adenoid (27, 9%) allergic rhinitis (22, 9%) and pharyngitis (17,7%) are the most common ENT problems in our pediatric population.

The current study show that there is a slight male predominance, this conforms to the result obtained elsewhere [1–3]. Majority of our children were suffering from nasal disorder (49,8%). Among them, adenoid hypertrophy (51,1%), allergic rhinitis (42%) were commonly seen. They are responsible bilateral nasal obstruction of a wheezing open-mouthed, rhinolalia, rhinorrhea, and snoring or obstructive. Studies have shown that there is an increase in number of mast cells and allergic mediators in adenoid tissues which are capable of binding immunoglobulin E (IgE) and releasing histamines and other inflammatory mediators following

Table 2

Correlation commonly diagnosis and years (P < 001).

Diagnosis	1– 2 years	2–5 years	5– 16 years
Adénoïd hypertrophy	242	104	25
Allergic rhinitis	40	59	192
Foreign body	5	49	20
Sinusitis	0	2	5
Impacted wax	13	30	80
Chronic suppurative Otitis Media	30	14	4
Acute Otitis media	23	10	4
Defness hearing	5	8	16
Tonsillitis	4	45	186
Goiter	0	0	18
Pharyngitis	0	4	12

exposure to allergens [4].

It not surprising that impacted wax (40,6%) is relatively common, because the mothers care givers and our environment take is as a dirty take it as duty to always clean these children ears there by encouraging wax accumulation. The high prevalence of impacted wax obtained elsewhere in similar study population [1,5,6]. Chronic suppurative otitis media is a major health problem throughout the world in developing countries [7,8] including Senegal. In the current study otitis suppurative chronic were 15,8% among the ear disease. The study conducted by Kamfwa [1] in Zambia showed prevalence of otitis suppurative chronic in about 11,4%. Infection of the middle ear is the most common disease in children due to altered anatomy of Eustachian tube which is straighter in children as compared in the adult [9].

Thorat disorders constituted the third most common ENT diseases and tonsillitis (78,3%) was found to be the most common followed by goiter (6%) and pharyngitis (5,3%). Tonsillitis was found to be the most frequent Thorat disorders, this correspond to the result obtained by Kishve [10], Nepali [6] and Kamfwa [1].

5. Conclusion

The main health problems encountered in pediatric population in Senegal are low birth weight malnutrition and infection. This study indicated hypertrophic adenoid (27,9%) allergic rhinitis (22,9%) and pharyngitis (17,7%) are the most common ENT problems in our pediatric population. However, this study can provide basic data for health plan and future local research work.

Table 1

Category of ENT disorders.

Disorders	Diagnosis	Frequency (n)	Percentage (%)
Nose Disorders	Adénoïd hypertrophy	371	51,1
	Allergic rhinitis	305	42
	Foreign body	42	5,8
	Sinusitis	7	1,1
Ear Disorders	Impacted wax	123	40,6
	Chronic suppurative Otitis Media	48	5,8
	Acute Otitis media	37	2,2
	Foreign body	32	0,6
	Defness hearing	29	9,6
	Others	34	1,2
	Thorat Disorders	Tonsillitis	235
	Goiter	18	6
	Pharyngitis	16	5,3
	Others	32	10,4
TOTAL		1329	100

Nose disorders most common disorder was adenoid hypertrophy (51,1%) followed by allergic rhinitis (42%). Ear disorders constituted the second most common ENT. Among Thorat disorders tonsillitis was troubling in about 78,3% of cases followed by thyroid disease (6%) and pharyngitis (5,3%).

Ethics approval and consent

This study has approved by the ethic comity of Saint Louis hospital (Senegal).

Funding

Nil.

Authors contributions and consent for publication

Hady TALL, Fatoumata Yari BAH and Timi NASSER conceptualized the project and participated in data analys and dafting the manuscript.

Aly SAMBOU and Bay Karim DIALLO participated to the correction of the manuscript.

All authors read and approved the final manuscript.

Conflicts of interest

No competing interest.

Acknowledgements

Nil.

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