


Research Article

Prevalence of ENT, Neck and Face Diseases in Children Aged 0-14 Years in the ENT Department of the Center Hospitalier Universitaire Gabriel Toure in Bamako

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Abstract

ENT, neck and face disorders are usually benign, but can often be grafted to complications with after-effects that affect the child's psychomotor development, with serious school and social consequences. The aim of the present study is to determine the prevalence of ENT, neck and face disorders in children aged 0 to 14 in the ENT department of the Gabriel Tour é University Hospital Centre (UHC) in Bamako. This was a prospective descriptive study conducted from September 1 to November 30, 2021. The results show that the prevalence of ENT, neck and face disorders in children aged 0 to 14 years was 14.53% of department consultations during our study period. Males predominated with 53.07% of cases, a sex ratio of 1.6. The 0-4 age group was best represented, with 49.01% of cases. Otalgia was the most frequent reason for consultation, accounting for 38.60% of cases. Acute otitis media (AOM) was the most common pathology with 24.30% of cases, followed by nasopharyngitis with 17.40%. Otological conditions accounted for the majority, with 58.29% of cases. Otological conditions were followed by naso-sinus conditions with 26.57% of cases, and pharyngolaryngeal conditions with 14% of cases. ENT, neck and face infections are frequent in children. This frequency, linked to immune learning, has repercussions on social and school life. Early treatment can help reduce the morbidity of these conditions.

Keywords

ENT Disorders, Child 0-14 Years, ENT Department, Bamako/Mali

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1. Introduction

Ear, nose, throat (ENT), neck and facial disorders, are pathologies affecting the ears (otology), the nose and its appendages (rhinology), the pharynx and larynx (laryngology), the neck and the face [1]. These pathologies are encountered in subjects of all ages, but are more frequent in children, thanks to their morphology and adaptation phenomena for immune acquisition [2]. The ENT sphere is the gateway to free germs, favored by its direct communication with the outside environment, poverty and promiscuity in developing countries, thus explaining the high morbidity of these affections in children under 15, particularly young children [3]. The particular frequency of acute otitis media (AOM) in children is explained by the coexistence of recurrent rhinopharyngitis and by an Eustachian tube that is probably more permeable, but above all shorter and more horizontal, due to the growth of the craniofacial mass [4]. These conditions are usually benign in nature, but can often be grafted on to complications with sequelae that jeopardize the child's psychomotor development, with serious school and social consequences [5]. ENT, neck and face disorders therefore remain a real public health problem [6]. In France, 60% of paediatric recruitment is in the ENT department [7]. In Ivory Coast, studies report 52% to 63.9% in schools [8, 9]. In Mali, a study carried out in Ségou showed that in 1999, the ENT department accounted for 12% of consultations at the regional hospital [10]. Another study carried out at Bamako's Gabriel Touré Hospital in 1991 showed that 12% of the hospital's consultations were ENT [11]. These conditions are often a source of disruption to school and family relationships. The aim of the present study is therefore to determine the prevalence of ENT, neck and face disorders in children aged 0 to 14 in the ENT, neck and face department of the Gabriel Touré University Hospital in Bamako-Mali.

2. Materials and Methods

This is a prospective and descriptive study carried out over three (3) months from September 1, 2014 to November 30, 2014 in the ENT, neck and face department of the Gabriel Touré University Hospital in Bamako. Sampling was done exhaustively, focused on children aged 0 to 14 years received in the department during the study period. All children aged between 0 and 14 years who were seen on an outpatient or on-call basis at the ENT, neck and face department of Gabriel Touré University Hospital in Bamako during the study period, and whose parents agreed to be included in the survey, were included in this study. Patients not in the 0-14 age group and not presenting to the ENT, neck and face department of Gabriel Touré University Hospital, Bamako, were excluded. A total of 350 cases were collected. Information was obtained through direct interviews with the children's parents, during examinations of the children by attending physicians in outpatient clinics, and during on-call duty.

Data were recorded on a specially designed survey form. Data were entered into Microsoft Word 2007 and analyzed using Microsoft Office Excel 2007. All staff in the ENT, neck and face department at Gabriel Touré University Hospital were informed. The survey was then carried out with the free and informed consent of the children's parents. Anonymity was strictly respected.

3. Results

During the study period, we noted that out of 2408 patients seen in the ENT-CCF department, 350 cases were recorded in the 0-14 age group, i.e. 14.53% of consultations. Male sex predominated with 188 cases or 53, 70% with a ratio sex of 1.16. The 0-4 age group was best represented, with 49.10% of cases. The Bambara and Malinké ethnic groups were the best represented, with 31% and 21% of cases respectively. The majority of patients resided in communes III and II, with 20% and 16% of cases respectively. In this study, 53% of patients did not attend school. Otagia was the most frequent reason for consultation, accounting for 38.60% of cases.

Table 1. Distribution of conditions by location.

Location of conditions	Number	Percentage (%)
Ear	204	58, 29
Nose and sinuses	93	26, 57
Larynx and Pharynx	49	14
Neck and Face	4	1, 14
Total	350	100

The pathology of the ear represented the majority of consultations, with 204 patients (58.29% of the total).

Table 2. Distribution of patients by diagnosis.

Diagnostic	Number	Percentage (%)
AOM	85	24, 30
Chronic otitis media	60	17, 10
Otitis externa	23	6, 60
Cerumen plug	15	4, 30
Deafness	11	3, 10
Rhinopharyngitis	61	17, 40
Rhinitis	24	6, 90

Diagnostic	Number	Percentage (%)
Angina	23	6, 60
Other	48	13, 70
Total	350	100

Other: foreign bodies (bronchial, esophageal, atrial and nasal), cleft lip and palate, laryngomalacia, epistaxis, trauma (ear, nose), cervical tumor.

Acute otitis media and rhinopharyngitis were the most frequent pathologies, accounting for 24, 30% and 17.40% of cases respectively.

4. Discussion

Certain difficulties were noted in this study:

1. Erroneous information linked to confusion on the part of some mothers regarding the child's symptomatology.
2. Geographical distance was the reason for the lack of follow-up for some patients.
3. Inaccessibility to certain complementary examinations due to lack of resources made it difficult to make certain diagnoses.

Males predominated with 53.70% of cases, i.e. a sex ratio of 1.16. The same finding was made by Touré [2], who also found a predominance of males with 53.30% of cases, and Adjoua et al. [8] in Côte d'Ivoire with a sex ratio of 1.04. But this result is contrary to those of Traoré [5], Sissoko [6] and Hounkpatin et al. [12], who found a predominance of females (58.07%, 60.90% and 50.29% respectively). Daou [8], on the other hand, noted no predominance of gender. Hounkpatin et al. [12] in Parakou, Keita et al. [13] in Mali and Adoga et al. [14] in Nigeria found no gender difference in their study. Thus, one cannot deduce the influence of sex on these affections. The 0-4 age group was the best represented, with 49.10% of cases. The result of this study is superior to that of Sissoko [6] and Hounkpatin et al. [12], who found 34% and 21.9% respectively for the 0-5 age group. This period is the most propitious for immune acquisition in children, due to frequent episodes of rhinopharyngitis, known as adaptation disease. The Bambara and Malinké ethnic groups predominated in this study, with 31% and 21% of cases respectively. This result is close to that of Traoré [5], who found 34.32% and 23.74% respectively for the Malinké and Bambara ethnic groups. This can be explained by the strong representation of these ethnic groups in Mali in general and in the Bamako district in particular. In this study, 53% of our patients did not attend school, which can be explained by the high frequency of the 0-4 age group. The school age which generally takes place in the present case was 7 years. The majority of patients resided in communes III and II, with 20% and 16% of cases respectively. These results are close to those of Sablikou [15]. This may be explained by the proximity of these communes to the Gabriel

Toure University Hospital. Otalgia was the most frequent reason for consultation, accounting for 38.60% of cases. This result is lower than that of Traoré [5], who found 69.47% of otalgia cases. Other signs included rhinorrhea, otorrhea, nasal obstruction and hypoacusis. To this end, the population needs to be informed and made aware of the major risks they run. This should enable them to avoid certain risk factors, such as hyperventilation, bathing in the open air, non-observance of certain hygiene advice, cooling (air conditioning), water entering the ear, and passive smoking. Other risk factors include:

Inappropriate use of cotton buds in the ear:

1. Acute exposure of the ear to noise.
2. misuse of ototoxic products.
3. Non-compliance with prenatal consultations by pregnant women.

These various practices should be avoided by the population, as they encourage the occurrence of deafness (conductive and sensorineural). In this study population, otological disorders accounted for the majority, with 58.29% of cases. The predominance of otological disorders is shared by Traoré [5] in Bamako, who found 81.41%, and Adjoua et al. [8] in Côte d'Ivoire, who found 39.8% of cases of otological disorders in schools. This predominance of otological disorders is of concern to parents and practitioners alike. The consequences of otological disorders include a drop in school performance and a disruption of the child's social life through delayed language. The frequency of these ailments is indicative of neglect on the part of parents, who often take a long time to consult a doctor, and the trivial consideration given to certain ailments. All this is crowned by self-medication or traditional treatment, often within the framework of poverty, and often inadequate care at first referral health centers, the failure of which is a reason for hospital consultation. Acute otitis media and rhinopharyngitis were the most frequent pathologies, accounting for 24.30% and 17.40% of cases respectively. This high prevalence of AOM is shared by Sanogo [1], Traoré [5] and Sablikou [15]. The high prevalence of these conditions is explained by the immaturity of the defense system, involving tumoral and anatomical factors.

5. Conclusion

Of all these conditions, otological disorders predominate, followed by naso-sinus and pharyngolaryngeal disorders. These conditions are particularly serious, leading to difficulties at school, isolation and psycho-affective imbalance. Better social living conditions and individual and collective hygiene can help to prevent the spread of these diseases. This study confirms that, as elsewhere, children are highly exposed to ENT diseases. Consequently, to avoid complications and after-effects, it is advisable to take action in this area, and above all against ear infections. This will ensure that children and young people remain in good health, enjoying all their faculties and functions, including those of the ENT sphere.

Abbreviations

AOM	Acute Otitis Media
ENT	Ear, Nose, Throat

Author Contributions

Mamadou Ouattara: Data curation, Investigation
Mariam Sangar é Data curation, Formal Analysis, Investigation, Methodology, Supervision
Lassana Keita: Writing – review & editing
Diaff éDram é Data curation, Investigation
Karim Diarra: Investigation
Fatoumata Ouattara: Data curation, Investigation
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Fatogoma Issa Kon é Conceptualization, Supervision, Visualization
Samba Karim Timbo: Conceptualization, Supervision, Visualization
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Conflicts of Interest

The authors declare no conflicts of interest.

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