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Acute Ear, Nose and Throat Pain in Children in Brazzaville

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Abstract **Original Research Article**

Objective: To evaluate the intensity of acute pain associated with ENT conditions during consultations and the effectiveness of the analgesic prescribed. ***Patients and Methods*:** We conducted a prospective, experimental, randomised, double-blind study in the ENT CCF department of the CHUB. The study took place over a period of 9 months (01 March to 30 November 2021) and involved only children aged 2-12 years presenting with an acute ENT complaint and having been treated in the ENT consultation department of the CHUB. Paracetamol and ibuprofen were administered after pain assessment. ***Results*:** During the study period, 60 patients presented with acute ENT complaints and were managed on an outpatient basis. The mean age was 7.7 +/- 31 years, with extremes ranging from 2 to 12 years. Tekes were the most represented ethnic group at 58.4%. Schoolchildren represented the most common school level. Acute pain affected patients' life activities. Acute pharyngitis was the most common pathology. Acute ENT pain. Paracetamol and ibuprofen were the molecules most frequently used, and pain was virtually absent on the 3rd day of use (96.7% and 75% respectively for paracetamol and ibuprofen). ***Conclusion* :** Acute pain in children is often underestimated or sometimes inadequately treated.

Keywords : Pain, Children, Brazzaville, ENT.

INTRODUCTION

Pain is defined as an unpleasant sensory, cognitive, affective, behavioural and emotional expression related to an existing or potential tissue lesion. This definition highlights the great variability that can exist between each individual in the perception and expression of pain when faced with the same painful stimulus [1]. It is a complex, polymorphic, multifactorial and multidimensional subjective phenomenon.

Nevertheless, its management is inextricably linked to its assessment, which determines its value as an alarm signal. Two types of pain are recognised: acute, short-term pain and chronic, intractable pain [2]. This type of pain does not seem to be adequately managed in children.

However, very few studies have been carried out on acute pain during acute ENT conditions in children.

The aim of this study was to evaluate the intensity of acute pain associated with ENT disorders in the consultation setting and the effectiveness of the analgesia prescribed, in order to enable efficient pain management for children.

PATIENTS AND METHOD

This was a prospective, experimental, randomised, double-blind study in the ENT CCF department of the CHUB. The study took place over a period of 09 months (01 March to 30 November 2021) and involved only children aged between 2 and 12 years, presenting with an acute ear, nose and throat condition and having been treated in the ENT consultation department of the CHUB...

The patients were divided into two groups by randomisation (with a number in order of arrival) using a random number table.

Analgesics and NSAIDs were the drugs selected for the management of acute pain. They were administered orally at a rate specific to each molecule: Paracetamol at a dose of 60mg/Kg/D/6h and ibuprofen at a dose of 10mg/Kg/D/8h.

Two pain assessment methods were used: the six faces scale for patients aged 2 to 6 years and the visual analogue scale (VAS) for patients aged over 6 years.

Data analysis was performed using SPSS 12 For Windows, EPI info 6.04, and Microsoft Excel.

RESULTS

During the study period, 60 patients presented with acute otorhinolaryngological conditions and were managed on an outpatient basis. The mean age was 7.7 ± 3.1 years with extremes of 2 and 12 years and a ratio of 1.22 in favour of girls (55%). The ethnic groups were Tékés (58.4%), Kongo (16.6%), Ngalas (18.3%) and foreigners (6.7%), who were mainly members of the West African community living in Brazzaville. Schoolchildren (58.4%) were most represented, followed by pre-schoolers (30%), those not attending school (6.6%) and college students (5%) (Figure 1). Pain affected patients' life activities: sleep (16.6%), youth (18.3%), eating (16.6%) and school (16.6%) (Figure 2). The main pathologies reported by patients as causes of acute ENT pain were tonsillitis (8.36%), otitis externa (10%), otitis media (10%), acute pharyngitis (48.34%) and pathologies associated with ENT (23.3%) (Figure 3).

The drug most commonly used for acute pain was paracetamol in 30 cases (50%), compared with ibuprofen in 12 cases (20%). Betamethasone and Chlorhexidine/Lidocaine were used in 8 cases (13.33%) and 10 cases (16.6%) respectively. However, the pain was mild in 26.7% and 16.7%, and moderate in 66.7% and 66.6% with paracetamol and ibuprofen respectively (Table 1).

On the 3rd day of treatment, pain had disappeared in 85% of children treated with ibuprofen and in 78% of children treated with paracetamol.

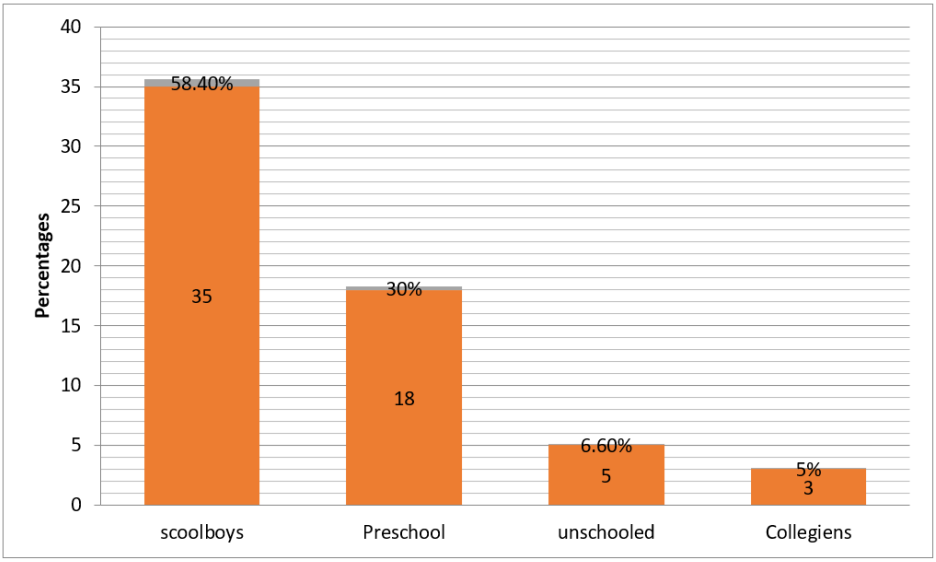

Figure 1: Educational level of patients

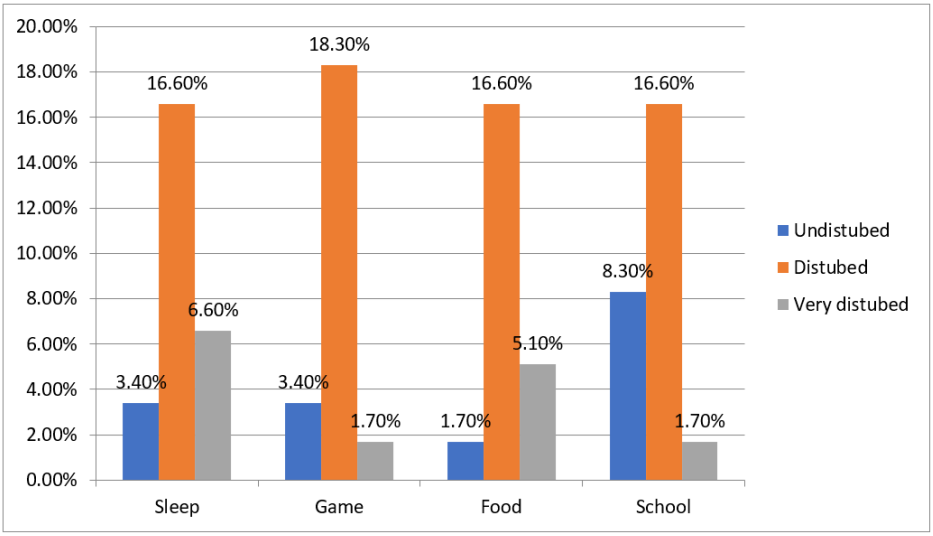

Figure 2: Impact of pain on patients' activities of life

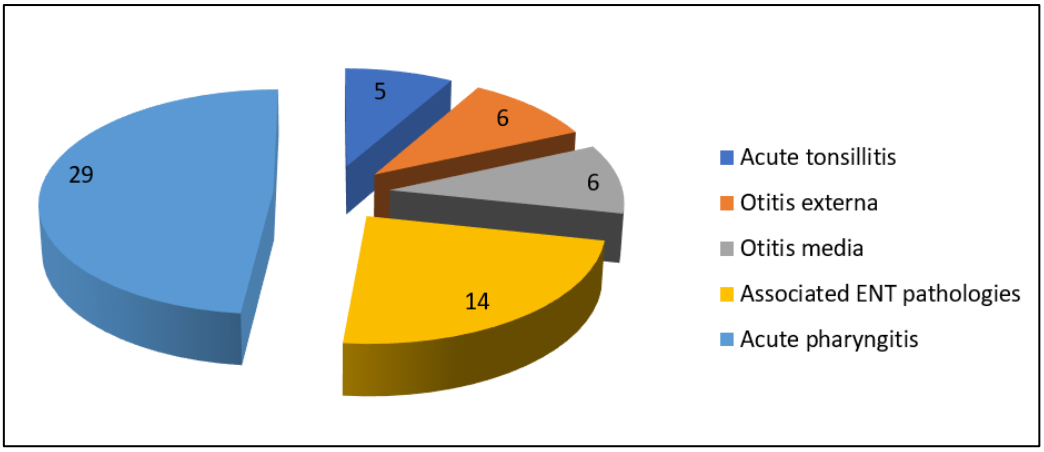

Figure 3: Pathologies causing acute ENT pain

Table 1: Assessment of pain intensity according to type of analgesic used (Paracetamol and Ibuprofen)

Analgesics / Intensity	Paracetamol n (%)	Ibuprofen n (%)
Low	8 (26,7)	2 (16,7)
Medium	20 (66,7)	8 (66,6)
Intense	2 (6,6)	2 (16,7)
Total	**30 (100)**	**12 (100)**

DISCUSSION

The choice of the age of the children (2 to 12 years) was based on the use of pain assessment tools. Under the age of 2, pain is assessed using hetero-assessment scales based on the association of evocative behaviours [3]. However, beyond the age of 12, children can identify pain in the same way as adults [4].

The six faces scale is not directly correlated with pain but with the emotions that accompany it. It therefore seems to be more suitable for children under the age of 6, providing indirect information about the intensity of the pain, but above all without the intervention of patients, who may either overestimate or underestimate it [5].

Our series was predominantly female, with a mean age of 7.7 years, with the majority in the 2-4 age group (43.3%). This representation according to sex and age is variable and controversial in several studies.

Schachtel and Lander [6, 7] also report a female predominance in their series. However, Narcy *et al.*, [69] found in their series a male predominance with a ratio of 1.7. The exaggerated female expression of pain has been reported by several African authors who value the supremacy of boys over girls [8, 9]. Several authors have also reported that ENT adaptation pathologies are more common in children under 5 years of age [10-12].

The predominance of the Téké ethnic group strongly found in our series could be due to the fact that this group constitutes the largest component of the Brazzaville population according to the 2018 general population and housing census [13].

In our series, schoolchildren accounted for 58.33% of cases. These were therefore children who could express themselves easily, understand the assessment scales with a good application of the latter allowing adequate management.

Otouana Dzon *et al.*, report that otalgia generated by acute otitis media is better expressed in children over 6 years of age, but exaggerated in those under 4, as at this age the child seems less autonomous and increasingly demands parental attention [14].

It was found playing, eating, sleeping and schooling were disrupted in 63.33%, 58.3%, 58.3% and 53.57% of cases respectively on admission. This finding has also been made by several authors.

SY *et al.*, in Senegal in 2018 reported that nutrition was the first parameter to be affected by pain in children [15]. However, in 2019 in Congo Otouana Dzon *et al.*, report that after tonsillectomy in children, pain is maintained by the psychological trauma and would first affect the child's schooling [16].

The study reports a high intensity of pain associated with acute pharyngitis. However, there was no significant difference from other acute ENT conditions. This finding was also observed by Bertin *et al.*, [17].

In our series, 66.7% and 66.6% of patients respectively experienced moderate pain after using paracetamol and ibuprofen. This observation was made in the study by Brock *et al.*, in France [18] who reported persistence of average pain with ibuprofen and paracetamol during angina.

On the 3rd day of treatment, this pain had disappeared in 85% of children treated with ibuprofen and in 78% of children treated with paracetamol. These results are similar to those of Keita [19] and Seremé [20]. The former noted an absence of pain in 90% of children treated with ibuprofen compared with 70% of those treated with paracetamol.

Seremé found that pain disappeared in 80% of children treated with ibuprofen, 70% of children treated with paracetamol and 55% of children treated with placebo. This difference was not significant. We can therefore suggest at least 48 hours of systematic analgesic administration in children with acute ENT conditions.

The high pain score in children who had received level I analgesics should prompt doctors to prescribe a combination of two or even three analgesics from the outset. According to French recommendations [1], the aim of the treatment is to reduce the intensity of the child's acute pain to below 3/10, so that the child can return to basic activities, while complying with the general rules for prescribing any acute pain

CONCLUSION

Children's pain, whether acute or chronic, is often underestimated and sometimes inadequately treated. Its management must be rigorous and methodical, and require a thorough knowledge of the assessment scales. However, the combination of paracetamol and an anti-inflammatory agent provides rapid relief.

Conflict of Interest: We have no conflict of interest.

Contribution of the Authors

All the authors have contributed to the conduct of this work and also declare that they have read and approved the final version.

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