

**Treatment of Pain in Children Operated of Labial and / or Palatine Slit in Mali**Adama TRAORE<sup>1</sup>, Hamady TRAORE<sup>1</sup>, Nouhoum DIANI<sup>3</sup>, Baba DIALLO<sup>1</sup>, Aboubacar S.T. KANE<sup>2</sup><sup>1</sup>Teaching Hospital, National Centre of Dental Surgery of Bamako<sup>2</sup>Odontology Unit, Military Hospital of Bamako IHB<sup>3</sup>Anesthesia, Intensive Care Unit of Hôpital du Mali**\*Corresponding author**

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**Abstract:** Labial and labial-palatine slits are the most frequent congenital cranial-facial malformations, of embryologic origin which affect in a variable way the upper lip, the base of the nose and the future dental arch and/or the soft palate and the palate. Pain is an unpleasant sensory and emotional experience, related to a real or potential tissue lesion or described in term of such a lesion. It was about a cross-sectional, descriptive, multi-centric study of duration of 5 months going from May 1<sup>st</sup>, 2012 to September 30<sup>th</sup>, 2012 in the Hospital Complex Mère-Enfant (Mother - Child) Luxembourg and at Hospital du Mali (HM). Our study related to 49 patients. Patients whose weight was lower than 4.5kg and those less than 3 months old were excluded from our study. The data was collected on an individual investigation sheet established according to the goals of the study, the socio-demographic variables and the evaluation Parameter of pain. The typing, the analysis and the text processing were carried out on Microsoft Word and Excel 2010. Approximately 2/3 of the sample was represented by the male sex 65.31% that is a sex ratio of 1.88. The age bracket 7 to 12 was the most represented with 38.78%. The labial-unilateral slit was dominant with 57.14%. The consequences were simple for 95.92 % of the patients. Paracetamol perfusion was used as analgesics for 63.27% of our sample during the operation. The most frequent duration of the treatment was 72H. Infra-orbital anesthesia was not used in 59.18% of the patients. The most frequent duration of hospitalization was 72H with 67%. The management of the DPO is a process essential to the good stability of the intervention and especially in children affected by labial and/or palatine slit, because it prevents them from crying and above all from being agitated with the risk of causing a postoperative failure by releasing of the strings.

**Keywords:** Treatment, Pain, Children, Platinum, Slit, Hospital, Mali

**INTRODUCTION**

Labial and labial-palatine slits are the most frequent congenital cranial-facial malformations of embryologic origin (occurring between the 35th and 40th day of pregnancy) which affect in a variable way the upper lip, the base of the nose and the future dental arch (labial-alveolar slits), and/or the soft palate and the palate (labial-palatine slits). Around 1200, the labial-palatine slit was known in the Arab schools of Salern. The first writings on this pathology go up to ANTILLUS and GALIEN, they are still considered nowadays as a disease caused by misfortune, the families, in order to defy the fatalism of these malformations do hospital consultations [ 1-3 ].

The consequences of the labial-palatine slit can be: Morphological (With the possibility of facial deformation of the nose, the upper lip, the alveolar arcade and the palate changing with the growth); Functional (By the interruption of the muscular straps of the lips, the soft palate and the oropharynx).

So, according to the clinical forms, there are disorders of breathing, phonation, swallowing, hearing and the dental eruption [4]. The treatment of these affections requires a surgical operation which generates post operational pains.

Pain is an abnormal and painful impression received by a living part and perceived by the brain [5]. According to (IASP) the International Association for the Study of Pain "pain is an unpleasant sensory and emotional experience, related to a real or potential tissue lesion or described in term of such a lesion" [6].

Increasingly frequent reason for consultation in hospital environment the treatment of the pain in general and the post operational pain (DPO) in particular has become a critical element of quality and accreditation [7], because it thus remains under estimated, therefore, insufficiently treated. The evaluation of the post operational pain and the therapeutic effectiveness rest on the good measurement

and the adequate use of the various scales of measurement of pain [8].

The measurement of the intensity of the pain in a child is all the more complex as it is necessary to resort to specific evaluation methods which have proven their effectiveness.

It is accordingly that we started this study on the children carrying labial and/or palatine slit. The goal of the study was to evaluate the protocols of treatment of the postoperative pain of children operated of labial and/or palatine slits in the Hospital Complex Mère-Enfant (Mother-Child) Luxembourg (CHME) and at Hôpital du Mali.

**METODOLOGY**

It was about a cross-sectional, descriptive, multi-centric study of the activities of treatment of the pain in children operated of labial and/or palatine slit of duration of 5 months going from May 1<sup>st</sup>, 2012 to September 30<sup>th</sup>, 2012 in the Hospital Complex Mère-Enfant (Mother-Child) Luxembourg and at Hôpital du Mali (HM). Our study related to 49 patients having a labial and or palatine slit that were treated and followed after the interventions. Patients whose weight was lower than 4.5kg and those less than 3 months old were excluded from our study; the data was collected on an individual investigation sheet established according to the goals of the study. Socio-demographic variables and the Parameter of evaluation of the pain (CHEOPS scale): Children's Hospital of Eastern Ontario Pain scale was implemented. The typing, the analysis and the text processing were carried out on Microsoft Word and Excel 2010.

**RESULTS**

**Table-I: Distribution of the size according to sex**

Sex	Size	Percentage %
Male	32	65,31
Female	17	34,69
Total	49	100

Approximately 2/3 of the sample was represented by the male sex 65.31% that is a sex ratio of 1.88.

**Table-II: Distribution of the size in relation to the age in (months)**

Age	Size	Percentage
0 to 6	5	10.20
7 to 12	19	38.78
13 to 18	8	16.33
19 to 24	5	10.20
More than 24	12	24.49
Total	49	100

The age bracket 7 to 12 was the most represented with 38.78%.

**Table-III: Distribution of the size in relation to the place of intervention**

Hospital	Size	Percentage %
H. Mali	20	40.82
CHME	29	59.18
Total	49	100

As for the interventions, 59.18% were done at Hôpital Mère-Enfant

**Table-IV: Distribution of the size in relation to the diagnosis**

Diagnosis	Size	Percentage %
Unilateral labial slit	28	57.14
Bilateral labial slit	9	18.37
Palatine slit	12	24.49
Total	49	100

Unilateral labial slit was dominant with 57.14%

**Table-V: Distribution of the size in relation to the operative consequences**

Op. consequences	Frequency	Percentage (%)
Simple	47	95.92
Complicated	2	4.08
Total	180	100

The consequences were simple in 95.92 % of the patients

**Table-VI: Distribution of the size in relation to the analgesic used**

Kind of	Frequency	Percentage (%)
Paracetamol Perfusion	31	63.27
Paracetamol + Nufluril suppo	18	36.73
Total	49	100

Paracetamol perfusions were used as analgesics in 63.27% of our sample during the operation.

**Table-VII: Distribution of the size in relation to the duration of the treatment**

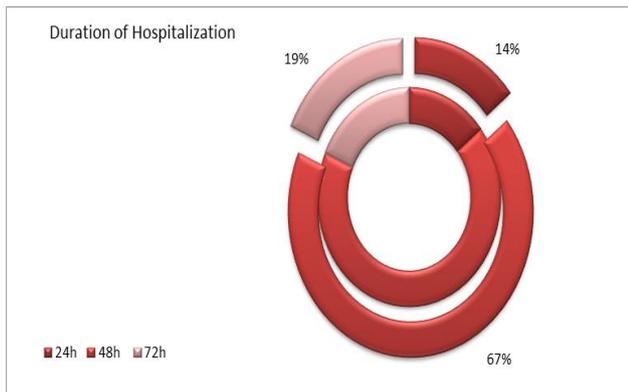
Duration of Treatment	Size	Percentage %
24H	0	0.00
48H	4	8.16
72H	31	63.27
96H	8	16.33
120H	6	12.24
Total	49	100

The most frequent duration of treatment was 72H

**Table-VIII: Distribution of the size in relation to the use of infra orbital anesthesia**

Infra orbital anesthesia	Size	Percentage %
Yes	20	40,82
No	29	59,18
Total	49	100,00

Infra orbital anesthesia was not used in 59.18% of the patients



**Fig-1: Distribution of the size in relation to the duration of the hospitalization**

The most represented duration of hospitalization was 72H with 67%

**DISCUSSION**

It was about a cross-sectional, descriptive study of a duration of 5 months which objective was evaluate the protocol of treatment of pain in children operated of labial and or palatine slits in a Malian population (from Bamako).

In our study, about 2/3 of the sample was represented by the male sex 65.31%, that is a sex ratio of 1.88. This result is comparable with that of DIOMBANA M.L. *et al.* [2] who reported a male prevalence in their study at the hospital of Kati.

The age bracket 7 to 12 months were the most represented 38.78%. This result is due to the efforts provided by the authorities and people of goodwill such as the NGO Horizon Vert which militate with public awareness campaigns for the free treatment of the slits.

As for the interventions, 59.18% were carried out at the Hospital Mother-Child; this result is lower than that of DIOMBANA M.L. *et al.* [2]. This difference is due to the fact that the study was done in two hospitals, hospital mother-child and Hôpital du Mali.

The unilateral-labial slit was dominant with 57.14%; this result is comparable with that of

MAGASSA O *et al.* [3] who found more palatine and labial-palatine slits in their study. The consequences were simple in 95.92 % of the patients; the same thing was reported by NOIRRIT-E. E *et al.* [4] in their study relating to the palatine Plates in the baby carrying labial-jawbone slit.

Paracetamol perfusions were used as analgesics in 63.27% of our sample during the operation. This result is opposed to that of Bibiane A. [7]. This difference would be explained by the choice of our sample (the children) and who in general showed a very satisfactory general state and without antecedent during their admission in the project (study).

The most represented duration of treatment was 72H; the same thing was reported by DABOU K *et al.* [5] in postoperative analgesia to clonidine and bupivacaine. The infra orbital anesthesia was not used in 59.18% of the patients. The most represented duration of hospitalization was 72H with 67% the same thing was reported by Diarra L M *et al.* [8].

**CONCLUSION**

At the end of this study relating to the evaluation of the DPO and its treatment in children affected by labial and/or Palatine slit, we noted that: the intensity of the pain was low during the first hours after the administration of analgesics. Marcaïne used as infra orbital at the end of the intervention makes it possible to have a prolonged analgesia. The association Paracetamol + niflumic Acid (Nifluril) suppository was effective on intense pains.

Finally, the management of the DPO is a process essential to the good stability of the intervention and especially in the children affected by labial and/or palatine slit, because it prevents them from crying and above all from being agitated with the risk of causing a postoperative failure by releasing of strings.

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