# Injuries to the head, face, mouth and neck in physically abused children in a community setting

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Summary. Objectives. The aims of the present study were to identify the incidence of orofacial injuries found within a cohort of physically abused children, and examine demographic data surrounding the alleged perpetrator, the location in which the alleged assault occurred, the mechanism of injury and the actual orofacial injury incurred. Methods. The research took the form of a retrospective study of clinical case records of children with suspected physical abuse from 1 June 1998 to 31 May 2003. Seven hundred and fifty case records were identified and 390 (46.7%) were available for data extraction. *Results.* Fifty-nine per cent (n = 230) of children had signs of abuse on the head, face or neck. The alleged perpetrator was the mother in 104 cases (26.7%), the father in 100 (25.6%) and mother's partner in 49 other cases (12.6%). More than half (53.3%)of the alleged abuse occurred in the child's home; in 32.3% of cases, the location was not recorded. Other locations included outside in a public place, school and at the home of the alleged abuser. Some 23.4% (n = 54) had been punched or slapped around the head, neck or face, 17.4% (n = 40) had been struck by an object, and 15.2% (n = 35) had allegedly sustained multiple modes of injury. Bruising to the head, neck or face was seen in 95.2% (n = 219) of children, and 32.6% (n = 75) had abrasions; 65.2% (n = 150) of the bruises and 22.9% (n = 53) of the abrasions were on the face. Conclusions. Fifty-nine per cent of physically abused children in the present cohort had

orofacial signs of abuse which would be easily visible to a dental practitioner. The commonest injuries were bruises and abrasions. This concurs with previous reports in the literature and highlights the important role of dental practitioners in the recognition of children who have been abused.

## Introduction

Current UK Government and Scottish Executive legislation aims to reduce the incidence of child abuse with measures such as the Sex Offender's Register [1] and the Criminal Justice (Scotland) Act 2003 [2], which has made it illegal to hit a child on or around the head, shake them, or strike them with implements. Whilst most children are very safe at home, it is unfortunate that, for many, home can be the setting for abuse.

The Scottish Executive Health Department has issued guidance for healthcare professionals, outlining their responsibility to protect children [3]. Many of the signs of physical abuse manifest in the orofacial region (for the purposes of the present paper, the term orofacial pertains to the head, face, mouth and neck). Although dentists are ideally positioned to identify physical abuse [4], there is still a reluctance to do so [5,6].

The first study to examine the types of injuries sustained in the physically abused child was published in 1966 [7], and described 29 fatal cases of abuse seen over a 2-year period in the Department of Forensic Medicine at the London Hospital Medical College, London, UK. In 1969, Skinner and Castle

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[8] documented injuries to 78 abused children requiring medical attention. O'Neill et al. [9] studied 110 cases of child abuse brought to the hospital over a 5-year period in 1973, and in 1977, Baetz et al. [10] examined the records of 58 cases of battered children over a 4-year period. In Becker et al.'s 1978 study [11], the medical records of 260 cases of child abuse admitted to the Children's Hospital in Boston, MA, USA, between 1970 and 1975 were reviewed, and 65% were found to have suffered an orofacial injury. Malecz [12] cited 25 cases of suspected abuse reported by paediatric dentists in 1979, and in 1992, da Fonseca et al. [13] investigated injuries caused by child maltreatment in a review of 1248 cases on file in the paediatrics office at Hennepin County Medical Centre in Minneapolis, MN, USA, from January 1985 to December 1989, and found that 75.5% had orofacial injuries. In 1995, Jessee [14] reviewed the charts of 266 children, from newborn to 17 years of age, seen at the Texas Children's Hospital, Houston, TX, USA, during 1993 and 1994. All these children had all been reported to Children's Protective Services as suspected cases of physical abuse, and 66.2% had orofacial injuries. The high percentage of injuries to the head, neck and face (65-75%) supports the idea that the easy accessibility and psychological importance of these areas make them frequent targets for the abuser [14-16].

No study in the UK has addressed the prevalence of injury to the orofacial region in physically abused children. Therefore, the present authors undertook a retrospective study to identify the incidence of these injuries in a cohort of physically abused children to examine the demographics in relation to the alleged perpetrator, the location in which the alleged assault occurred, the mechanism of injury, and the actual injury incurred to the head, face, mouth and neck.

## Materials and methods

## Cohort

Ethical approval for the study was granted by Lothian Region Ethical Committee.

The medical records of children with suspected physical abuse were identified from a clinical database held by the Child Protection Service at the Royal Hospital for Sick Children in Edinburgh, UK. The database, held within the Community Child Health Department, documents the referrals of all children where there is a suspicion of abuse or neglect. The interagency Child Protection Guidelines dictate that multiagency discussions must take place to share information before a decision is made on the type of response. Referrals come from social workers, police officers and teachers, as well as nurses and doctors. Therefore, the Child Protection Service receives referrals about children who are in the community as well as those admitted to hospital. The children included in the present study were less than 16 years of age, were alleged or suspected victims of physical abuse, and had had a medical assessment between 1 June 1998 and 31 May 2003. Children with other types of abuse were excluded from the study.

## Data collection

A data collection sheet was adapted to allow comparison with earlier published studies (Fig. 1). Demographic details and information regarding the alleged incident were extracted from a review of the case notes by one researcher (A.M.C.). Information regarding the suspected perpetrator, alleged mode of injury and location of the alleged assault were also recorded where available.

The children were examined according to guidance issued by the Scottish Executive Health Department [3], either by a single doctor (comprehensive medical assessment) or a senior paediatrician working alongside a forensic medical examiner (joint paediatric forensic examination). The type of medical examination that the child had undergone was recorded. Where the expertise of a forensic odontologist, or any other dentist, was enlisted, this was also recorded.

The standard proformas which the examining doctors used contained diagrams on which injuries were documented, as well as a tick box to indicate that intraoral injuries had been looked for. Orofacial injuries, if present, were explored further. Extraoral injuries were categorized as follows: bruising; abrasions; lacerations; burns; bites; eye injury; and fractures. These were all documented with reference to site, namely: head, neck or face (ears were recorded as head injuries). Intraoral (mouth) injuries were recorded as trauma to teeth, soft tissues or fraenum. Diagrammatic illustrations of the sustained injuries were copied as they appeared in the medical records. Information as to whether the child was on the Child Protection Register was recorded, where available.

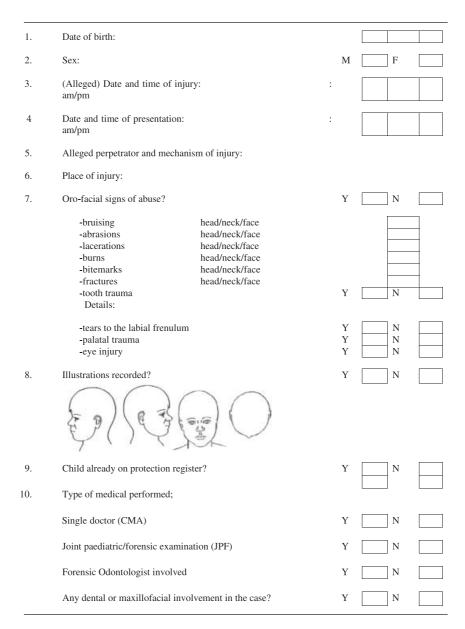


Fig. 1. Data collection sheet.

#### Data analysis

This was by simple descriptive statistical analysis and chi-square analysis.

# Results

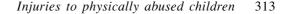
From the clinical database, 750 children with suspected physical abuse were identified for the period between 1 June 1998 and 31 May 2003. During the period of data collection from June to August 2003, medical records were available for only 390 individuals (46.7%). Clinical records were

removed to another storage facility for those patients who had reached 16 years of age during the 5-year study period, and hence, were unavailable. Records which were in use by clinicians or subject to criminal investigation were also unavailable to the present authors, and the proportion of records missing for each reason is not known.

## Cohort

One hundred and fifty-two children (39%) were examined by a single physician in a comprehensive medical assessment and 61% (238) had a joint

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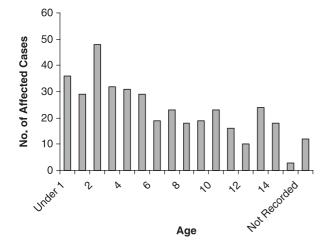


Fig. 2. Prevalence of abuse over age range.

paediatric forensic examination. In only in one case was a forensic odontologist involved. The age range of children with alleged physical abuse was 23 days to 15 years (Fig. 2). Forty-five per cent of the children examined were preschool age (<4 years), and the median age was 2 years (12% of total). There were significantly more boys than girls, i.e. 240 (61.5%) and 150 (38.5%), respectively. Chi-square analysis gave a value of P < 0.01. Fifty-nine children (15.1%) were recorded as being on the Child Protection Register at the time the abuse was reported and 158 (40.5%) were not. Information about the Child Protection Register was not recorded for 173 cases (44.4%).

### Alleged perpetrator

The majority of alleged perpetrators were the child's birth parents, with both parents responsible in five cases. The mother's partner was implicated in 12.6% of cases (n = 49), and other individuals cited as the alleged abuser were grandparents, aunts and uncles, family friends, foster parents, childminders, and older siblings. Table 1 shows the breakdown of alleged perpetrators.

## Location of abuse

The reported locations of the abuse are listed in Table 2. Over half of all alleged incidents occurred in the child's home. Other locations included a public place, the alleged abuser's home, various other locations, and in a third of incidents, the location was not recorded.

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Alleged perpetrator	Number of cases	Percentage of cases
Mother	104	26.7
Father	100	25.6
Mother's partner	49	12.6
Reported as accident	28	7.2
Childminder	14	3.6
Child sibling	13	3.3
Unrelated adult	5	1.3
Mother and father	5	1.3
Other	18	4.8
Undisclosed	54	13.8

Table 1. Alleged perpetrators of child physical abuse.

Table 2. Location of physical child abuse.

Location	Number of cases	Percentage of cases
	of cases	of cases
Child's home	208	53.3
Other	26	6.9
Outside	19	4.9
Home of alleged abuser	10	2.6
School	1	0.3
Undisclosed	126	32.3

## Injuries recorded to the head, face, mouth and neck

Out of 390 children who had medical examinations, signs of abuse on the head, face mouth or neck were recorded in 59% (n = 230). For the children with orofacial injuries, a detailed account of the site and nature of the injury was recorded. Injuries sustained to other body parts were outwith the remit of the present study, and hence, not recorded. A total of 315 individual injuries for the 230 affected children were documented. Bruising to the head, neck or face was seen in 95.2% (n = 219) of these children, and 32.6% (*n* = 75) had abrasions. Of the injuries, 65.2% (*n* = 150) of bruises and 22.9% (*n* = 53) of abrasions were visible on the face (Table 3). More than one type of orofacial injury was present in 70 children (30.4%). Ear injury was recorded as head injury, but on closer inspection, was found to affect 29 of the 230 cases and totalled 43 separate lesions. The only intraoral injury documented was one torn labial fraenum despite the fact that, in all cases, the medical examiners indicated that they had checked for intraoral injuries.

## Mechanism of injury

Fifty-four children (23.5%) reported punches or slaps around the orofacial region. Some 17.4%

Table 3. Site and number of injuries recorded.

Injury	Number of cases	Percentage of cases	
Bruised face	150	65.2	
Abrasion to face	53	22.9	
Bruised head	42	18.3	
Bruised neck	27	11.7	
Abrasion to neck	14	6.5	
Laceration to face	14	6.5	
Abrasion to head	8	3.7	
Laceration to head	4	1.9	
Bite to orofacial region	1	0.5	
Burn to orofacial region	1	0.5	
Torn labial fraenum	1	0.5	

Table 4. Alleged mechanism of physical abuse injuries.

Mechanism of injury	Number of cases	Percentage of cases
Struck by object	40	17.4
Slapped	30	13
Punched	24	10.4
Reported as accident	21	9.1
Burn	12	5.2
Grabbed	12	5.2
Smacked	12	5.2
Kicked	11	4.8
Multiple mechanisms (> 2)	35	15.2
Bitten	4	1.7
Other	27	11.7
Undisclosed	143	62.2

(n = 40) had been struck with an object, and 15.2%(n = 35) had allegedly sustained two or more methods of assault. Table 4 lists the alleged mechanism of injuries reported.

## Discussion

This is the first UK study of its type. However, the present results could be biased by the low sample rate. About half of the children's records were not available to the authors during the data collection period, but they believe that the results can be compared with previous work carried out elsewhere in the world. Clinical records were removed to another storage facility for those patients who had reached 16 years of age during the 5-year study period, and hence, were unavailable. Records which were in use by clinicians or subject to criminal investigation were also unavailable to the authors. Forty-five per cent of the children with suspected physical abuse were of preschool age ( $\leq 4$  years), and 15.4% were aged between 12 and 15 years. A

bimodal distribution has also been reported by other authors, with more preschool children being victims of abuse [7,9,13,14,17-22]. Adolescents commonly challenge parental authority and this may trigger violent responses. In comparison, infants and young children are more likely to be victims of abuse because of their challenging behaviour, defencelessness, physical fragility and inability to escape from an angry parent. They also lack the social contacts to keep them away from the stressed caregiver for periods of time. Most of these children are also so young that they have not yet developed the required language or communication skills to describe how their injuries occurred. This places an additional burden on all healthcare practitioners when attempting to interpret the cause of injuries.

Some authors have suggested that there is no gender predilection in physical abuse [7,14,17], whilst others have indicated that a greater number of males are victims of abuse [15,19,20,23–26]. The present results concur with the predominance of male victims. When the perpetrator of the abuse was alleged or known, the birth parent was responsible in just over half of the present cases, a figure comparable to Jessee [14], who found that the mother was responsible in 31% of their cases and the father in 24%. Kenney and Clark [27] found that birth mothers and fathers were implicated almost equally in physical abuse cases, but rarely collaborated in such acts. The present authors found that only five children who reported abuse by both parents, compared to a single case cited by Jessee [14]. Gallo [28] found that one parent is usually the abuser, while the other parent assumes a passive position, thus allowing the abuse to continue. The fact that the vast majority of assault occurred in the child's own home reduces the chances of an uninvolved witness to give evidence in the case. In Jessee's study, 92% of the cases were believed or acknowledged to have occurred at home [14].

In the present study 22.5% of cases had been punched or slapped, this compares with 32.8%reported by Jessee [14]. A further 16% of the children in the present study had been beaten with an implement, while 15.6% had sustained more than two mechanisms of assault. Such assaults have been criminal offences in Scotland since the advent of the Criminal Justice Act for Scotland in October 2003 [2]. It is of concern that the alleged mechanism is not stated in about two-thirds of the cases. This could reflect poor record keeping, but more likely

Reference	Orofacial	Orofacial				
	Injury (%)	Face (%)	Head (%)	Neck (%)	Intraoral (%)	
Becker et al. [11]	65	43	16	_	6	
da Fonseca et al. [13]	75.5	64	65.3	16	33.3	
Jessee [14]	66-2	23.9	18	10	2.1	
Present study	59.2	77.5	21.6	16.9	0.5	

Table 5. Reported sites of injury in child physical abuse.

represents recommended practice where children are jointly interviewed by the police and social worker, who will have recorded what the child said. Such 'hearsay evidence' may not be documented by the paediatrician unless the child discloses directly to the doctor. The present authors reiterate the importance of meticulous record keeping in all clinical situations, but especially in child abuse work that is likely to lead to legal proceedings.

When an individual is attacked for whatever reason, the head, neck and facial areas are often involved. This is because these areas are exposed and accessible, and the head is also considered to be representative of the whole person. Table 5 compares the present results with those from previous studies on the distribution of injuries to the head, face, mouth and neck. The authors found that twothirds of children with alleged physical abuse displayed signs of assault on their head, neck or face. This high figure is also seen in the work of da Fonseca [13], where 75.5% of the injuries presented on the head, face, mouth and neck. Jessee [14] found that 31.2% had injuries to the face and mouth, a further 31.2% had injuries involving the head, and a further 3.7% had injuries involving the neck. Cameron et al. [7] called attention to the fact that bruises on the head, face and neck were obvious in more than half of the cases which they studied.

The present authors found that the most frequent injury was bruising, and in 66% of cases, this was evident on the child's face. This type of injury is readily detectable by any lay person, but especially so by the dentist, and should raise immediate suspicion as to its aetiology. In almost one-third of all cases where orofacial signs were present, there was more than one visible injury. Cases with more than one injury should also raise suspicion of maltreatment. The present results, which found 315 injuries in 230 children, confirmed the trend seen in a previous study [11], where 386 injuries were found in 260 children. Bruising to the ears is rarely accidental [18] and was recorded as an injury to the head; in many cases this was bilateral. In addition, the present authors found injuries to the neck (bruising in 10.7% and abrasions in 6.5%). Such injuries should always be viewed with suspicion since the neck is difficult to harm accidentally, 29 of the present study cases had an injury to the ears, with a total of 43 separate lesions.

Previous studies have looked at the recurrence of abuse in examined children [13], but this was not an aim of the present work. However, the fact that at least 15% of the examined children were on the Child Protection Register at the time of the reported assault indicates past concern and perhaps a marker for recurrent abuse.

In the present study, where the majority of children were not admitted to hospital, no serious or life-threatening orofacial injuries were found, nor were any fractures documented. Radiographs were only taken if clinically indicated, and some fractures could have been missed. In a survey of predisposing factors for injuries in 86 children, Fabian and Bender [15] found that 57.0% had evidence of skull fracture. O'Neill et al. [9] considered skull fractures to be a late stage of maltreatment, while soft tissue trauma was a visible, and thus, early sign of physical abuse. Lauer et al. [21] reported that 22.3% of the cases in their study of 'battered children' at the San Francisco General Hospital San Francisco, CA, USA, had skull fractures and 8.4% had subdural haematomas, while Buchanan and Oliver [29] found that 3% of 140 children with learning difficulties had been completely normal before violent abuse. Becker et al. [11] reported that 16% of 260 cases of confirmed physical abuse involved skull fractures, subdural haematomas, and contusions and lacerations of the scalp. The above study was carried out at Boston Children's Hospital, Boston, MA, USA.

Becker [11] found head, face and intraoral trauma in 65.0% of cases, twice the number of injuries found in other parts of the body. Compared to da Fonseca's study [13], the present results would suggest that there are few intraoral injuries. Taking into account the high number of other orofacial injuries reported by others (Table 5), it would seem strange that the mouth was not affected to a greater extent. Perhaps intraoral injuries may have been overlooked because of the examining doctors' lack of familiarity with the oral cavity. In a survey of the characteristics of multidisciplinary child protection teams around the USA, Kaminer et al. [16] found a lack of participation by dental professionals. A similar survey has not previously been conducted in the UK, but the presence of specialist and consultant paediatric dentists would make dental input into these cases possible. The first reference in the literature regarding the presence of a dental professional in a child maltreatment team was made by Badger [30]. Jessee found that collaboration between a dentist and the examining physicians occurred only once in 266 cases [14]. There is scant reference to the role of dental practitioners in guidance from the Scottish Executive Health Department [3]. As a result, no dentist was asked for their opinion on the presence of intraoral injuries as part of the Edinburgh Protocol. A forensic odontologist was asked to aid in bitemark identification in one case.

The involvement of dentists on child protection teams would be beneficial in two ways: dentists would become aware of their role, and would assist in the training of physicians and other professionals. In turn, nondental practitioners would benefit from consultations with dentists in the evaluation of physical and sexual abuse or neglect, especially those dentists who have experience or expertise with children. The present authors recommend that specialist and consultant paediatric dentists should be routinely involved in the intraoral examinations of cases of suspected child abuse.

#### What this paper adds

• This study provides an estimate of the incidence of injury to the orofacial region in a cohort of physically abused children in the UK.

#### Why this paper is important for paediatric dentists

- This paper re-emphasises that paediatric dentists are ideally placed to identify signs of physical abuse.
- It would be beneficial if specialist and consultant paediatric dentists were routinely involved in the intra-oral examination of cases of suspected child abuse.
- Explanation should be sought for bruising to the orofacial region and bruising to the neck or ears, should be viewed with particular suspicion.

In the present cohort, about two-thirds of physically abused children have injuries to the head, face, mouth or neck which would be easily visible to a dental practitioner. The commonest injuries were bruises and abrasions. This concurs with previous reports in the literature and highlights the important role of dental practitioners in the recognition of children who have been abused.

**Résumé.** *Objectifs.* Identifier l'incidence des blessures oro-faciales dans une population d'enfants victimes d'abus physiques et examiner les données démographiques concernant les abuseurs présumés, le site où s'est produit l'agression décrite, le mécanisme de la blessure et la blessure orofaciale actuelle. *Méthodes.* Une étude rétrospective des cas cliniques enregistrés d'enfants avec suspicion d'abus physique, du 1<sup>er</sup> juin 1998 au 31 mai 2003. 750 cas ont été identifiés et 390 (46,7%) ont pu faire l'objet d'une extraction de données.

Résultats. 59% (230) des enfants présentaient des signes de violence sue la tête, le visage ou le cou. Les abuseurs présumés étaient la mère dans 104 cas (26,7%), le père dans 100 (25,6%) et le partenaire de la mère dans 49 (12,6%). Plus de la moitié (53,3%) des violences décrites ont eu lieu à la maison de l'enfant, le lieu n'étant pas enregistré dans 32,3% des cas. Les autres sites comprenaient l'extérieur dans un lieu public, l'école et le domicile de l'abuseur présumé. 23,4% (54) avaient subi des coups de poing ou giflés autour de la tête, du cou ou de la face, 17,4% (40) avaient été frappés à l'aide d'un objet, et 15,2% (35) avaient décrit de multiples modes de blessures. Des contusions sur la tête, le cou ou la face ont été décrits chez 95,2% (219) des enfants et 32,6% (75) présentaient des abrasions. 65,2% (150) des contusions et 22,9% (53) des abrasions étaient situées sur le visage.

*Conclusions.* 59% des enfants victimes d'abus physiques dans notre cohorte présentaient des signes oro-faciaux de violence facilement détectables pour un dentiste. Les blessures les plus fréquentes étaient les contusions et les abrasions. Ceci confirme de précédentes observations dans la littérature et illustre l'importance du rôle des praticiens dentaires dans le dépistage des enfants victimes.

Zusammenfassung. Ziele. Identifizieren der Inzidenz von orofazialen Verletzungen in einer Gruppe körperlich misshandelter Kinder und die Bestimmung demographischer Daten von Beschuldigten,

<sup>•</sup> Two thirds of the children with alleged physical abuse showed signs of assault on their head, neck or face. In 66% of cases this took the form of bruising.

die Lokalisation wo die angegebene Verletzung stattfand, Verletzungsmechanismus und das Ausmaß der aktuellen Verletzung.

*Methoden*. Retrospektive Analyse von klinischen Falldokumentationen mit Verdacht auf körperliche Misshandlung. Von 1. Juni 1998 bis 31 Mai 2003. Es wurden 750 Fälle identifiziert, davon waren 390 (46.7%) für die Auswertung zugänglich.

Ergebnisse. 59% (230) der Kinder hatten Zeichen der Misshandlung an Kopf, Gesicht oder Hals. Als Verursacher angeschuldigt war 104 Fällen (26.7%) die Mutter, der Vater in 100 (25.6%) sowie der Partner der Mutter in 49 Fällen (12.6%). Mehr als die Hälfte (53.3%) der Fälle ereignete sich in der Wohnung, in welcher das Kind wohnte; in 32.3% der Fälle war kein Ort dokumentiert. Andere Lokalisationen waren in der Öffentlichkeit, Schule oder zuhause bei dem angenommenen Verursacher. 23.4% (54) wurden an Kopf, Hals oder Gesicht gestoßen oder geschlagen, 17.4% (40) wurden mit einem Objekt geschlagen, 15.2% (35) erlitten verschiedene Verletzungsmechanismen. Blaue Flecken von Kopf, Hals oder Gesicht wurden bei 95.2% (219) beobachtet, 32.6% (75) wiesen Abrasionen auf. 65.2% (150) der Flecken und 22.9% (53) der Abrasionen befanden sich im Gesicht.

Schlussfolgerungen. Von den körperlich misshandelten Kindern in der untersuchten Gruppe wiesen 59% orofaziale Zeichen auf, welche dem Zahnarzt gut sichtbar sind. Am häufigsten waren Flecken und Abrasionen. Dies bestätigt frühere Publikationen und zeigt die wichtige Rolle von Zahnärzten für die Erkennung von körperlicher Misshandlung bei Kindern.

**Resumen.** *Objetivos.* Identificar la incidencia de lesiones oro-faciales encontradas en una cohorte de niños con abusos físicos y examinar los datos demográficos acerca del presunto autor, el lugar en que ocurrió el presunto asalto, el mecanismo de lesión y la lesión oro-facial producida realmente.

*Métodos*. Un estudio retrospectivo de registros de casos clínicos de niños con abusos físicos sospechosos, desde el 1 de Junio de1998 al 31 de Mayo de 2003. Se identificaron 750 registros de casos, de los que 390 (46,7%) estaban disponibles para la extracción de los datos.

*Resultados.* El 59% (230) de los niños tenían signos de abuso en la cabeza, cara o cuello. El supuesto autor fue la madre en 104 casos (26,7%), el padre en 100 (25,6%) y la madre del progenitor en 49 (12,6%). Más de la mitad (53,3%) de los presuntos

abusos ocurrieron en el domicilio del niño, en el 32,3% de los casos no se registró el lugar. Otros lugares incluían fuera en un sitio público, la escuela y en la casa del presunto abusador. El 23,4% (54) habían sido golpeados o abofeteados en la cabeza, cuello o cara, el 17,4% (40) había sido golpeado con un objeto y el 15,2% (35) había supuestamente recibido múltiples formas de agresión. Se vieron contusiones en la cabeza, cuello o cara, en el 95,2% (219) de los niños y el 32,6% (75) tenía abrasiones. El 65,2% (150) de las contusiones y el 22,9% (53) de las abrasiones fueron en la cara.

*Conclusiones*. El 59% de los niños con abusos físicos en nuestra cohorte tiene signos de abuso oro-facial que serían fácilmente visibles para el profesional dental. Las lesiones más comunes fueron contusiones y abrasiones. Esto concuerda con informes previos en la literatura y subraya el papel importante de los profesionales dentales en el reconocimiento de niños que han sufrido abusos.

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