

Oral Lesions at Birth

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Abstract

Objective: The aim of this study was to determine the frequency distribution of oral lesions at birth.

Method: All babies delivered in Mashhad sina hospital were examined for oral lesions immediately after birth for one year since 1.1.82.

In this cross sectional descriptive study, frequency distribution was detected From data.

Results: During the study period 3298 babies were delivered. Oral lesions included 76% Epstein pearls, 35% Bone nodule, 0.33% ankyloglossia, 0.12% natal teeth, 0.03% congenital epulis, 0.03% cleft lip, 0.06% cleft palate, 0.03% cleft lip and palate.

Conclusion: In this study Epstein pearls were the most common lesion at birth and cleft lip, with or without cleft palate and congenital epulis, were the lowest ones.

Keyword: Newborn, Oral lesion, Routine examination of the newborn

Introduction

Oral structures should be examined routinely at birth and at Coneeguext child visits. Early examination can reveal abnormalities that require treatment or serve as baseline against which to compare later development.

The oral lesions that present in newborn periods include natal and neonatal teeth, clefts, dental lamina cyst, Epstein pearls, Bohn nodules, alveolar lymphangioma, Tumors (congenital epulis), ankyloglossia, geographic tongue, ranula, mucocele and congenital lip pits (figure) (1,2).



Ranula



Mucocele

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Acceptation date: 83/5/27 Confirmation date: 83/7/14

The aim of this study was to determine the frequency of the lesions in first exam in newborn.

This data is important in order to detect differences in geographic areas, diagnosis line tendencies and for clinicians to perform judgment to evaluate the pediatric patients before the biopsy and management of pediatric oral lesions .

Materials and methods

All babies delivered in sina hospital were examined for oral lesions as cross sectional descriptive study since 1.1.82 for 12 months. The mouth of the newborn was examined while the child was lying on the examination table. The interior of the mouth was evaluated with a light and tongue blade with well washed hands. Frequency distribution was detected.

Results

During one year's study 3298 babies were delivered in sina hospital. As shown in the Table oral lesions include 76% epstien pearl, 35% Bohn nodule, 0.33% ankyloglossia, 0.12% natal teeth, 0.03% congenital epulis (0.6/1000 live birth), 0.03 % cleft lip (0.3 in / 1000 live birth), 0.06% cleft palate (0.6 in / 1000 live birth), 0.03% cleft lip and palate (0.3 in / 1000 live birth).

Discussion

The mouth of the newborn is characterized by toothless alveolar pads or ridges in the maxilla and mandible. In a healthy infant, the mother should be present during complete examination; even minor, seemingly insignificant, anatomic variation may worry a family and should be explained.

Several types of dental cysts related to embryonic structures may present at birth. Epstein pearls and Bohn nodules occur in approximately %80 of newborns(3).

Epstein pearls are white yellow cysts occurring along the median palatal raphes or at the junction of the hard and soft palates. They result from remnant of epithelial tissue entrapped during palatal fusion. In this study 76% of newborns had Epstein pearls.

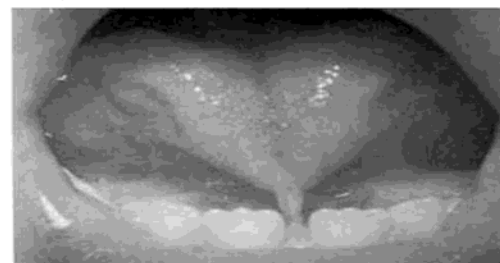
Bohn nodules are white yellow cysts occurring along the lateral aspects of the alveolar ridges and along the periphery of the palate. They may develop from heterotrophic salivary gland tissue or from remnants of the dental lamina. No treatment is necessary. About 35% of our babies had Bohn nodules (figure 3).



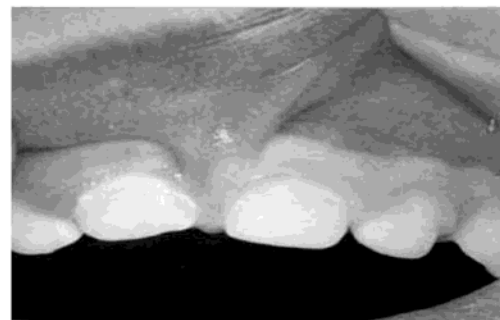
Dental lamina Cysts

Dental lamina cysts are fluid filled cystic formations found on the crest of the alveolar ridges, in most cases they are asymptomatic and regress spontaneously; however, if they interfere with eating, surgical intervention may be indicated.

The frenulum lingua is a band of tissue that connects the floor of the mouth to the tongue (ankyloglossia) (figure 4,5).



Ankyloglossia



Frenulum of Maxilla

The frenulum may lengthen, as the child gets older.

This may extend to the tip of the tongue (tongue-Tie) but does not interfere with sucking or later speech and it does not need to be surgically clipped except in severe forms (2,4).

Congenital epulis of the newborn is a rare tumor which is usually benign (5,6,7,8,9). (figure 6)



Cong Epulis

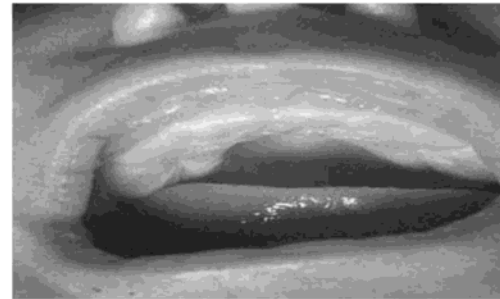
The first description of a case is attributed to Neumann in 1871. The word "epulis" is derived from Greek and means "on the gum" or "gum boil". Epulis is also known as a congenital gingival granular cell tumor because of its histological features. Since 1871, 216 cases have been reported. Female babies are affected 8-10 times more often than males (10). Epulis is located on the maxillary ridge twice as often as on the mandible, mostly as single tumors but rarely as multiple tumors. Macroscopically, epulis is a pedunculated tumor with a smooth or lobulated surface. The histologic basis of the tumor is the alveolar mucosa. The size varies from a few millimeters to 9 cm in diameter. After birth, the tumor normally does not increase in size. Macroscopic examination shows a central mass of granular cells. This mass is surrounded by a stratified squamous mucosa. The histogenesis of the tumor is unknown. Spontaneous regression of congenital epulis has been reported in four cases. Surgical excision was performed before delivery in one infant.

However, surgical excision is generally indicated due to interference with feeding or respiration.

Recurrence of the tumor after surgery has not been reported yet.

Incomplete or total lack of fusion of the various facial processes can result in different types of clefting.

Oral clefts are the most common of all birth defects (11). (figure 7,8).



Post cleft palate



Cleft lip & palate

Clefting of the lower lip or jaw are less than clefting in the maxillary area. Cleft lip can be unilateral or bilateral, an incomplete cleft as a small notch to a complete one. Boys are affected more frequently than girls. Girls are more frequently affected by cleft palate with or without cleft lip.

The exact etiology of palatal clefting is unclear; however, it is believed to be a multifactorial disruption of embryologic morphogenesis. Possible causes include maternal drug exposure, a syndrom malformation complex, or genetic factors. Cleft lip and cleft palate are highest among Asians and lowest among blacks.

The incidence of cleft lip, with or without cleft palate is about one in 750 white births; the incidence of cleft palate alone is about one in 2500 white births (2). In our study cleft palate and cleft lip alone were 0.6 and 0.3 in 1000 live birth respectively.

Premature eruption of primary teeth occurs in the united States in approximately one in 2000 to 3500 live birth. Teeth present at birth are called natal teeth, teeth that erupt within 30 days after birth are called neonatal teeth (figure 9).



Natal teeth

In approximately 15% of reported cases a family history of the premature eruption exist. The affected teeth are the lower central incisors, but cases with 12-16 teeth reporting the prevalence of natal and neonatal teeth is different from one in 1000 to one in 3392 live birth (12,13,14,15).

Our study was 1.2 in 1000 live births.

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As a result Epstein pearls were most common and cleft lip with or without cleft palate and congenital epulis were the lowest ones in oral lesion at birth in Sina hospital during one year.

Acknowledgement

We are specially thankful to Miss Hydarian, nuery nurse of Sina hospital for her cooperation.

Table 1: Frequency distribution of oral lesion at birth in Sina Hospital in 1382.

Item	No (%)	In 1000 live births
Epstein pearls	2512 (76)	760
Bohn nodule	1154 (35)	350
Ankyloglossia	11 (0.33)	3.3
Natal teeth	4 (0.12)	1.2
Cleft palate	2 (10.06)	0.6
Cleft lip	1 (0.03)	0.3
Cleft lip and palate	1 (0.03)	0.3
Congenital epulis	1 (0.03)	0.3

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خلاصه

توزیع فراوانی ضایعات دهانی در موقع تولد در اولین معاینه فیزیکی نوزاد

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مقدمه: هدف از این مطالعه تعیین توزیع فراوانی ضایعات دهانی در موقع تولد می باشد که در اولین معاینه فیزیکی به طور روتین در همه موالید انجام می شود.

روش کار: به مدت یک سال از تاریخ ۸۲/۱/۱ کلیه نوزادانی که در بیمارستان سینا متولد شدند به وسیله جراح قوه، چوب زبان و دستهای شسته معاینه گر در حالی که روی تخت خوابیده به پشت قرار داشتند، مورد معاینه روتین قرار گرفتند و ضایعات دهانی مشاهده شده یادداشت و توزیع فراوانی آن ها تعیین شد.

نتایج: در طی یک سال دوره مطالعه ۳۲۹۸ نوزاد تک قلو در بیمارستان متولد شدند. ضایعات دهانی مشاهده شده شامل مروارید ابشتن در ۷۶٪ موارد، ندول بون در ۳۵٪ موارد، انکیلو گلو سیا ۳۳٪، دندان نوزادی ۱۲٪، اپولیس مادرزادی ۰۳٪، شکاف لب ۰۳٪، شکاف کام ۶٪ و شکاف کام و لب توام ۰۳٪ مشاهده شد.

نتیجه گیری: در این مطالعه یکساله مروارید ابشتن به عنوان شایع ترین ضایعه دهانی در موقع تولد و شکاف لب یا بدون شکاف کام و اپولیس مادرزادی کم شیوع ترین ضایعات بودند.

واژه های کلیدی: نوزاد، ضایعات دهانی، معاینه فیزیکی روتین