Annals of the University of Oradea, Fascicle: Ecotoxicology, Animal Husbandry and Food Science and Technology, Vol. XVII/A2018

Analele Universitatii din Oradea, Fascicula: Ecotoxicologie, Zootehnie si Tehnologii de Industrie Alimentara, Vol.XVII/A 2018

INCIDENCE OF NATIVE TEETH IN BIHOR COUNTY - STATISTICAL STUDY

Pogan Mihaela Dana, Spinean Radu, Tent Adriana, Ciavoi Gabriela, Domocoș Daniela

[1]University of Oradea, Faculty of Dental Medicine, P-ta 1 Decembrie 5, Oradea, Romania,
e-mail: pogandarius@yahoo.com

Abstract

The presence of teeth at birth or before their normal eruption time is a rare occurrence. Native teeth are observed in infants at birth. The etiology of native teeth is not yet fully known. Our study covers a period of 7 years (2011-2018), during which the number of births, maternal backgrounds, newborns with native teeth, their sex and the type of birth were followed. Our study confirmed other studies in specialty literature. A thorough clinical knowledge and appropriate treatment plan is essential to manage such rare conditions, which are often viewed through superstitions by unrelated parents.

Key words: native teeth, incidence of neonatal teeth

INTRODUCTION

Native teeth are present in the oral cavity at birth and neonatal teeth are those that erupt during the first 30 days of life. These teeth do not have anatomical, morphological and structural features. (1a) [1].

The terminologies used to describe these teeth are: dentitia praecox, dense connatalis, congenital teeth, fetal teeth, infantile teeth, pre-teeth, and early teeth [3]. These dental eruption abnormalities are associated with several superstitions. In 23 BC, Gaius Plinius Secundus believed that a splendid future is expected for male infants with native teeth. In different countries, such as India, Poland and Africa, there were superstitions in general regarding their native teeth, and in African children, newborn babies were killed shortly after birth because they were believed to bring evil. In China, children with native teeth were felt to be harmful [2].

The incidence of native teeth is 1: 3000 live births. The most common location of native teeth is the lower central incisors in the mandible region [6]. The incidence of native and neonatal teeth is 85% for imandibular incisors, followed by 11% maxillary incisors, 3% mandibular and 3% molars, and only 1% for maxillary or molar cusps [7,8]. Of these 90% teeth are primary and only 10% are supernumerary [9]. Frequency in women by some authors (Kates & amp; numb.), 66% for women, compared to 31% for males [10,11,12].

The etiology of native and neonatal teeth is considered in the multifactorial literature, and we will recall [13,14,15]. :
1.Infections with congenital syphilis; where the eruption occurs sooner or later-
2. Malnutrition - Hypovicamines
3. Fever - Increased fever with rash during pregnancy
4. Endocrine disorders and hormonal stimulation
5. Hal said that the appearance of native and neonatal teeth is due to an abnormal position of dental buds and is considered a hereditary factor
6. Jasmin and Clergeau-Guerithault said that osteoblastic activity in dental buds is responsible for the eruption of native and neonatal teeth
7. Pregnant mothers accidentally exposed to toxic environment
8. Native teeth associated with various syndromes
The presence of native teeth can be associated with some syndromes such as Hallermann-Steriff syndrome, Ellis-van creveld syndrome, steatochistoma, multiplex, Pancyhonchia congenital, Wiedemann-Rautenchuchete, cleft lip and palates [16,17,18,19].

The purpose of the study

The aim of our study is to determine the incidence of neonatal teeth in Bihor county and to highlight possible factors and / or determinants in their etiology.

MATERIAL AND METHOD

This study was conducted at the Oradea County Emergency Clinical Hospital of Obstetrics and Gynecology in September 2011-August 2018. 30513 newborns were included in the study, of which 14 presented neonatal teeth. Data on mothers were collected including information on mother's age, number of previous pregnancies, fetal age at birth, physical condition of mother before birth, type of birth and socio-economic environment.

After the initial consultation, the anamnesis was brought to the knowledge of the study program and signed the consent form. We specify that all confidentiality conditions have been met.

All newborn babies born from September 2011 to August 2018 were subjected to a dental examination to find the position, number and clinical appearance of their native teeth. At that time, the children did not receive any treatment. The age of mothers was between 15-39 years.

The data were centralized in the tables and statistically processed. Based on results and examinations, conclusions were drawn. No x-rays were performed because of the risk of young age exposure.

RESULTS AND DISCUSSION

Between 2011-201, 30413 children were born at Clinc County Hospital of Oradea, Obstetrics-Gynecology, of which only fourteen children were born with native teeth, 9 girls and 5 boys.

Table 1

Distribution of native teeth in time, location, gender distribution

Year	Sex				Births (Numeric)
	Girls		Boys		
	Teeth present at birth (numeric)	Teeth present at birth (nominal	Teeth present at birth (numeric)	Teeth present at birth (nominal)	
2011	1	81,71			4269
2012	2	81,71			4398
2013	1	71	1	71	4089
2014			1	81,71	3963
2015	1	71	1	81,71	3666
2016	2	81,71	1	81,71	3672
2017	1	71			3084
2018	1	81,71	1	81,71	3372
TOTAL	9		5		30513

Table 2

Distribution of mothers according to the type of birth and the place of origin

Mother s age	Teeth present at birth (numeric)	Birth	Week	Socio-economic environment
39	II GIIP	C - section	39	Urban
23	II GIIP	C - section	39	Rural
32	II GIIP	normal birth	33/34	Rural
31	III G I	normal birth	37	Rural
34	IX G VIIIP	normal birth	37	Rural
15	I G I P	C – section	37	Rural
28	IV G IIP	C – section	39	Rural
21	IIG IIP	C – section	42	Urban
23	IIG IIP	normal birth	38	Rural
18	II GIIP	C – section	38	Urban
37	I G I P	normal birth	39	Rural
18	I G I P	normal birth	36/37	Urban
25	II GIIP	C – section	38	Rural
26	IIIG IIP	C - section	35/36	Rural

The location of the teeth was at the lower center of the incisors. The origin of mothers in rural areas is higher than in the urban environment. The birth type had no significant relevance to the presence of native teeth on the dental arch because eight children were born by caesarean and six by

spontaneous birth. Five newborns had only a central lower incisor present, and the newborns had both central mandibular incisors. Most children born with native teeth were the secondborn child. All the born children were from Bihor County.

DISCUSSION

In specialized literature cases of children born with native and neonatal teeth have been reported. The presence of native teeth is a rare anomaly. The etiology of native teeth is unknown but can be linked to several factors such as germ superposition [20, 21], infection or malnutrition [22], febrile incidents or hormonal stimulation [23], hereditary transmission of a dominant autosomal gene [24], osteoblastic activity within the germ area related to the remodeling phenomenon [25] and hippovitaminosis [26].

Native teeth are present at birth, and neonatal teeth erupted 30 days after birth [271]. The natal and neonatal incidence is 1: 2000 to 1: 3500 and the prevalence is 1: 700 to 1: 30,000 depending on the type of study [28,29,30]. The results of the current study are similar to other studies reported. The incidence of native teeth in our study was 1: 1085.2, which is almost similar to the above mentioned studies.

In our study we found a feminine preponderance. The most common dentition was in the mandibular central incisors, which are also reported in other studies [31]. As mentioned above, the type of birth has no relevance to the presence or absence of native teeth. From a clinical point of view, native teeth are poorly developed and have small conical shape [32].

conclusions

From the present study, there is no association between the mother's birth type and the mother's background.

Of the total of 14 children, 9 were girls and 5 were boys. Although I could not make a statistical study in this regard, the small number of subjects being too small to have statistically significant value, it seems that girls are more prone to appear of your native teeth than boys. 100% of the native teeth were mandibular central incisors.

Children with native teeth should be thoroughly examined and adequately treated. Parents should be properly informed in these cases because arcade position can lead to complications (injuries to the cheeks, tongue, lips or mother during sucking.) It is also important to explain the conditions for the appearance of these teeth and to advise the parents who many times they are subjected to popular superstitions with negative effects on the acceptance of the newborn child.

It is important to supervise child growth and development in the future, as well as to extend the studies related to the native teeth to understand as much as possible this anomaly

REFERENCES

1. Massler M, Savara BS. Natal and neonatal teeth: A review of 24 cases reported in the literature. J Pediatr. 1950;36:349–59. [PubMed]
2. Ardeshana A, Bargale S, Karri A, Dave B. Dentitia praecox - natal teeth: a case report and review. Journal of Applied Dental and Medical Sciences. 2016;2(1)
3. Mhaske S, Yuwanati MB, Mhaske A, Raghavendra R, Kamath K, Saawarn S. Natal and neonatal teeth-an overview of the literature, hindawani publishing corporation ISRN Paediatrics. 2013;2013:956269.[PMC free article] [PubMed]
4. Leung AKC, Robson WLM. Natal teeth: a review. Journal of the National Medical Association. 2006;98(2):226–28. [PMC free article] [PubMed]
5. Rao RS, Mathad SV. Natal teeth: Case report and review of literature. J Oral MaxillofacPathol. 2009;13(1):41–46. [PMC free article] [PubMed]
6. Venkatesh C, Adhisivam B. Natal teeth in an infant with congenital hypothyroidism. Indian Journal of Dental Research. 2011;22(3):498. [PubMed]
7. Chowdhary S, Tandon S. Congenital teeth: superstition and reality – a case report and review of literature. International Journal of Scientific Study. 2014;1(5):53–56.
8. Kates GA, Needleman HL, Holmes LB. Natal and neonatal teeth: a clinical study. J Am Dent Assoc. 1984;109:441–43. [PubMed]
9. Baskar S, Deepa G. Incidence of natal and neonatal teeth in infants born from assisted reproductive technology treatments and normal reproductive patterns at tertiary care centre, Chennai. A pilot study. International Journal of Pharmacy Practice and Pharmaceutical Sciences. 2015;2(11):01–03.
10. Cunha RF, Boer FAC, Torriani DD, Frossard WTG. Natal and neonatal teeth: review of the literature. American Academy of Pediatric Dentistry. 2001;23:2.
11. Boyd JD, Miles AE. Erupted teeth in ciclopsfaetus. Br Dent J. 1951;91:173. [PubMed]
12. Shafer WG, Hine MK, Levy BM. In: Tratado de PatologiaBucal. 4a Ed. Rio de Janeiro: Guanabara; 1985. Distúrbios do desenvolvimento das estruturasbucais e parabucais; pp. 2–79.
13. Leung AKC. Natal teeth. Am J Dis Child. 1986;140:249–51. [PubMed]
14. Bigeard L, Hemmerle J, Sommermater JI. Clinical and ultrastructural study of the natal tooth: enamel and dentin assessments. J Dent Child. 1996;63:23–31. [PubMed]
15. Shafer WG, Hine MK, Levy BM. In: Tratado de PatologiaBucal. 4a ed. Rio de Janeiro: Guanabara; 1985. Distúrbios do desenvolvimento das estruturasbucais e parabucais; pp. 02–79.
16. Jasmin JR, Clergeau-Guerithalt A scanning electron microscopic study of the enamel of neonatal teeth. J Biol Buccale. 1991;19:309–14. [PubMed]
17. Anderson RA. Natal and neonatal teeth: histologic investigation of two black females. J Dent Child. 1982;49:300–03. [PubMed]
18. Gorlin RJ, Goldman HM, Thoma K. In: Patologia Oral. 4th ed. Barcelona: Salvatore; 1973. pp. 163–166.
19. Wang CH, Lin YT, Lin YJ. A survey of natal and neonatal teeth in newborn infants. Journal of the Formosan Medical Association. 2016:pii, S0929–6646(16)30038-39.

20. Basavanthappa NN, Kagathur U, Basavanthappa RN, Suryaprakash ST. Natal and neonatal teeth: A retrospective study of 15 cases. Eur J Dent. 2011;5(2):168–72. [PMC free article] [PubMed]
21. Buchanan S, Jenkins CR. Riga-Fedes syndrome: natal or neonatal teeth associated with tongue ulceration: Case report. Aust Dent J. 1997;42:225–27. [PubMed]
22. Tomizawa M, Yamada Y, Tonouchi K, Watanabe H, Noda T. Treatment of Riga-Fede's disease by resin-coverage of the incisal edges and seven cases of natal and neonatal teeth. ShoniShikagakuZasshi. 1989;27:182–90. [PubMed]
23. Hedge RJ. Sublingual traumatic ulceration due to neonatal teeth (Riga-Fede disease) J Indian Soc PedodPrev Dent. 2005;3:51–52. [PubMed]
24. Smith DD. Natal and neonatal teeth. Available at: http://www.dermnetnz.org/topics/natal-and-neonatal-teeth.
25. MOURA LF,MOURA MS,LIMA MD,LIMA CC,Natal and neonatal teeth:a review of23 cases. J Dent Child,2014;81(2):107-11
26. Anegundi RT, Sudha P, Kaveri H, Sadanand K. Natal and neonatal teeth: a report of 4 cases. J Indian Soc PedoPrev Dent. 2002; 20:86-92.
27. Markou I, Kana A, Arhakis A. Natal and Neonatal Teeth: A Review of theLiterature. Balk J Stom, 2012; 16:132-140.
28. Rao RS, Mathad SV. Natal teeth: Case report andreview of literature. J Oral MaxillofacPathol.
29. 2009; 13: 41–6.
30. Leung AK, Robson WL. Natal teeth: a review. J Natl Med Assoc. 2006;98:226-8.
31. Khalifa AM, El Gendy RA, Abd El-Mohsen MM, Hammour AA, El Lateef Aly RSA. Relationshipbetweengestationalage, birthweightanddeciduoustootheruption. Gaz EgyptPaediatr Assoc.2014; 62:41–45
32. Kates GA, Needleman HL, Holmes LB. Natal and neonatal teeth: a clinicalstudy. J Am Dent Assoc.1984;109:441-3
33. Alaluusua S, Kiviranta H, Leppaniemi A, Holtta P, Lukinmaa PL, Lope L, Jarvenpaa AL, Renlund M, Toppari J, Virtanen H, Kaleva M, Vartiainen T. Natal and Neonatal Teeth in RelationtoEnvironmentalToxicants. PediatrRes. 2002;52:652-5.