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A RARE CASE OF DENTAL LAMINA CYSTS IN NEWBORN

Dental Science

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ABSTRACT

Dental lamina cysts or gingival cysts of the newborn are benign developmental transient lesion of oral mucosa arising from the epithelial remnant of dental lamina called cell rests of Serres. They are seen within first three months after birth, then rupture and regress spontaneously requiring no essential treatment. They can be seen as multiple small, whitish yellow papules or nodules on alveolar ridge mucosa and mid palatal mucosa each measuring not more than 3.0mm in diameter. The clinical significance lies in the fact that dental lamina cysts are usually misdiagnosed as natal/neonatal teeth. Hence they should be examined thoroughly. Here we provide a case report of dental lamina cyst in one month baby girl.

KEYWORDS

Dental Lamina Cyst, Gingival Cyst, Alveolar Cyst, Newborn

INTRODUCTION:

Dental lamina cyst, an oral cystic lesion seen in the newborn, is known by multiple other names such as Bohn's nodules, gingival lamina cyst or Epstein's pearls. Dental lamina cyst of newborn is the true superficial cyst with a thin epithelial lining and benign odontogenic cyst of transient nature found within in three months of birth. They arise from remnants of the degenerating dental lamina and consist of keratin producing epithelial lining. Dental lamina cysts are commonly seen in maxillary ridge as compared to mandible.[1,2,3] Clinically they appear like multiple small, white or yellow papules on the alveolar ridge, or buccal and lingual slopes of alveolar ridge; and along the midline, or at the junction of hard and soft palate. Commonly they are found as cluster 4 to 6 papules or nodules with size ranging from 1-3 mm, may also occur as solitary papule or node. The reported prevalence of palatal cysts in newborns is about 65%, while for alveolar cysts; it ranges from 25%4 to 53%. They are seldom encountered by general or pediatric dentist because of their transient self-limiting nature as they frequently fuse with oral epithelium with subsequent discharge of cystic content and no treatment is required except for parental counselling and reassurance. Though, the dental lamina cyst of newborn is self-limiting and transient in nature with little pathologic significance, it has to be diagnosed cautiously to avoid unnecessary therapeutic procedures as they are usually mistaken as natal/neonatal teeth.[3,4,5] The present case report describes the characteristic clinical presentation of dental lamina cyst of newborn in one month old baby girl.

CASE REPORT:

A female infant, one month old, was brought to the Department of Oral Medicine and Radiology by her parents complaining of small white swellings or nodules which appeared like teeth over the lower gums since one week. Mother reported that she noticed these swellings or nodules one week back when the baby was crying. It was asymptomatic and did not interfere with feeding. History taking also revealed that the baby was full term born with no complications during pregnancy or delivery. All the required vaccinations were done soon after birth and her medical history was on-contributory. Extra-oral examination did not revealed any significant noticeable finding. On intraoral examination, well demarcated multiple numbers of small whitish yellow exophytic lesions or papules/nodules were seen bilaterally on the alveolar ridge of the maxilla in the deciduous canine and molar region (Figure 1 & 2). The size of the lesions ranges from 2x2mm to 3x3mm approximately. On palpation the lesions were soft and spongy in consistency. No other abnormalities were seen on the buccal mucosa, tongue, palate or on the floor of the mouth. On the basis of clinical presentation and characteristic finding, a diagnosis of dental lamina cyst of the newborn was made. Biopsy of the lesion could not be carried out because of parent's refusal to consent. Since these lesions are self-limiting in nature, parents were counselled and reassured and the child was kept under observation after giving oral hygiene instructions to the parents. The patient was kept for periodic recall and the lesions were disappeared by the next appointment after one month.

DISCUSSION:

The dental lamina cyst, also called as gingival cyst of newborn is a true developmental cyst as it is lined by thin epithelium and with a keratin filled lumen. Dental lamina cyst, a benign oral cystic lesion seen in the newborn, is also known by other names like Bohn's nodules, gingival lamina cyst or Epstein's pearls. These names are given due to their site specificity and histological composition.[3,4] According to **Fromm** these oral cystic lesions in newborns can be divided into three types on the basis of location and histopathology. (1) **Epstein's pearls:** these nodules are located along midline raphe and consist of keratin. They are thought to arise from remnants of epithelium in the midline. (2) **Bohn's nodule:** these cystic nodules are commonly found at junction of hard and soft palate. They contain keratin and develop from minor salivary glands. (3) **Dental lamia cyst:** these cystic lesions are usually multiple and found along the alveolar margins (ridges). They are said to develop due to proliferation of remnants of the dental lamina. According to **Paula et al.** these oral cystic lesions are divided on the basis of location; (1) **Palatal cyst** – located in the mid-palatine raphe. (2) **Alveolar cysts** – located on buccal, lingual or crest of alveolar ridge.[5,6]

Clinically these cysts appear as small, isolated, or multiple; 1-3 mm sized white or yellow white papules and nodules. In our case the cysts were located in the maxillary alveolar ridge as stated by several authors. They are mostly asymptomatic. These cysts must be differentially diagnosed from congenital epulis of newborn and nata/neotal teeth. Congenital epulis of newborn is a smooth-surfaced protuberant rare benign tumour mass; present most commonly along the alveolar ridge with normal-to-reddish in colour and size varies from few millimetres to few centimetres in diameter which sometimes cause feeding/respiratory problems. Smaller lesions management includes careful wait and watch/surgical intervention whereas larger lesions are excised surgically. Natal/neonatal teeth are commonly found in the mandibular anterior region and usually show mobility as their roots are short or absent and thus they are extracted as of having risk of being ingested during feeding and trauma to tongue and interfere in feeding.[7,8,9]

Treatment is usually not suggested for these lesions as they are asymptomatic and regress spontaneously by fusing with the oral epithelium and discharging its contents into the oral cavity. All to be

done is close monitoring of the lesion, without any invasive procedure and to counsel the parents about the benign, self-limiting and transient nature of lesion such that parents don't get anxious.[10]

CONCLUSION:

Oral physicians should have through knowledge of clinical presentation of these lesions. As no active treatment is required for their management, dentist must reassure and counsel the parents about transient nature and self-limiting characteristics of these cysts.

Figures:



Figure-1: White-yellow nodules on left side of alveolar ridge.



Figure-2: White-yellow nodules on Right side of alveolar ridge

REFERENCES:

1. Kolay SK, Purkait SK, Mishra MN, PK, Ramankant Sinha R. Gingival Cyst of Newborn: A Case Report. J Clin Den Res Edu, 2013;2(3), 38-40.
2. Benni DB and Sirur D. Gingival cyst of the newborn: A case report. INTERNATIONAL DENTISTRY – AFRICAN EDITION VOL. 3, NO. 2; Page 32-34.
3. Moda A. gingival Cyst of Newborn. International Journal of Clinical Pediatric Dentistry, 2011;4(1), 83-84.
4. Singh RK, Kumar R, Pandey RK, Singh K. Dental lamina cysts in a newborn infant. BMJ Case Reports 2012; doi:10.1136/bcr-2012-007061.
5. Vasanthakumari A, Shanmugavadivel G, Pavithra M. Dental Lamina Cyst in a Newborn Infant -A Rare Case Report. Sch. J. Dent. Sci., 2016; 3(2):71-73.
6. Fromm A; Epstein pearls, Bohn's nodules and inclusion cyst of the oral cavity. J.Dent.Child., 1967;34:275-287.
7. Patait MR, Patait RM, Saraf K, Ghabne M, Kumar M. Gingival Cyst of newborn. JMRP. 2012;1(3):50-51.
8. Nagarathna C, Mathew S, Pravin MV. Gingival Cyst of Newborn - A Case Report. JIDA. 2012;6(1):51-52.
9. Merrett SJ, Crawford PJ. Congenital epulis of the newborn: a case report. Int J Paediatr Dent 2003;13:127–9.
10. Chauhan D, Sharma KR, Kaundal JR, Thakur S, Parasher K, Chauhan T. Congenital gingival cyst of neonate: Dentist's enigma. SRM J Res Dent Sci 2013;4:135-6.