

Case Report

Gingival cyst of new born: a case report

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Received: 19 May 2016

Accepted: 02 July 2016

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ABSTRACT

Dental lamina cyst, also known as gingival cyst of new born, is a benign oral mucosal lesion of transient nature. They are often mistaken as natal teeth if present in the lower anterior region. These lesions are usually multiple but do not increase in size. Lesions are self-limiting and spontaneously shed a few weeks or months after birth. Clinical diagnosis of these conditions is important in order to avoid unnecessary therapeutic procedure and provide suitable information to parents about the nature of the lesion.

Keywords: Dental lamina cyst, Gingival cyst, Newborn

INTRODUCTION

Many features of the infant mouth are unique and peculiar to the birth period of development, and some benign oral mucosal conditions are frequently found in new born, which are transient in nature. Based on histological origin and location in the oral cavity, From classified oral mucosal cysts as Epstein pearls, Bohn's nodules and dental lamina cyst which is otherwise known as gingival cyst of new born.¹

Gingival cyst of the new born is a cyst that arises from the rest cells of the dental lamina. Generally occur in multiples but occasionally as solitary nodule also, white to yellowish in appearance, and are round to oval in shape. They are located on the alveolar ridges of new born or young infants and are generally asymptomatic and do not produce any discomfort for the infant.²

Based on the location, these cysts may be divided into palatal or alveolar cysts. Those located at the mid palatine raphe are referred as palatine cysts while those present on the buccal, lingual or crest of alveolar ridge as alveolar or gingival cysts.³ The reported prevalence of alveolar cyst in new born ranges from 25 to 53%, while for palatal cyst is about 65%.⁴⁻⁶ Individually, the prevalence of gingival cyst of infants is 13.8%, Epstein pearls is 35.2% and

Bohn's nodule is 47.4% with no sexual predilection.⁷ Although prevalence is high, these cysts are rarely seen by dentist or paediatrician because of their transient nature, which disappear within few weeks or months after birth.

CASE REPORT

A two month old male baby was brought to the department of oral medicine with a complaint of a swelling in upper right gum region, noted since one week after birth. History revealed that the swelling was static with no increase in size. He is the first child to a non-consanguineous married couple. The child was full term born with no complications during pregnancy or delivery. All the required vaccinations were started soon after birth and medical history was non-contributory.

Intra oral examination of the child revealed a small nodule with whitish appearance compared to adjacent mucosa over right alveolar ridge nearly 2mm from the midline, Soft in consistency with a size of 3×5mm (Figure 1). No other abnormality was seen in any other sites of the oral cavity.

On the basis of clinical examination and characteristic appearance of the lesion, a diagnosis of the gingival cyst

of new born was made. Since lesion is self-limiting the child was kept under observation after giving instructions to parents.



Figure 1: Small nodule with whitish appearance compared to adjacent mucosa over right alveolar ridge.

DISCUSSION

Gingival cyst of new born, also known as dental lamina cyst is a true cyst as it is lined by thin epithelium and shows a lumen usually filled with desquamated keratin, occasionally containing inflammatory cells.² These structures originate from the remnants of the dental lamina and are located in the corium below the surface epithelium. The nodes are result of cystic degeneration of epithelial rests of dental lamina (rests of Serres). After the dental lamina invaginates to form the dental organ, the epithelial pedicle that connects the dental organ to the surface epithelium is broken down giving rise to the rest of Serres. Occasionally they may become large enough to be clinically noticeable as discrete white swellings on the ridges. Majority of these degenerate and involute or rupture into the oral cavity within 2 weeks to 5 months of post natal life.^{8,9}

The diagnosis of gingival cyst must be differentiated from other conditions, which are typically seen during the same time and possibly also have a location similarity. These include natal and neonatal teeth, Epstein's pearls and Bohn's nodules. Most often natal teeth are seen in

relation to mandibular anterior region. Natal or neonatal tooth will be hard on palpation and have little root structure and are attached to the end of the gum by soft tissue and are often mobile. Palatally located cysts in new born were first described by Alois Epstein and are often referred to as Epstein's pearls. These are also keratinized cysts which occur along the median palatal raphe and arise from the epithelium entrapped along the line of fusion. Bohn's nodules, so called after his description of the same in 1866, are scattered over junction of the hard and soft palate and are derived from minor salivary gland. Bohn also classified cysts in the alveolar ridges as mucous gland cysts.⁷ However, later studies by Moreillon and Schroeder have shown that these cysts are microkeratocysts.¹⁰

The mechanism behind the disappearance of the cyst in post natal life has been attributed to a discharge of cystic keratin at the time of fusion of the cyst wall with the oral epithelium. However it has been suggested that part of the cystic epithelium may remain inactive even in the adult gingiva.

CONCLUSION

Occurrence of congenital cystic lesions in the oral cavity is uncommon in neonates and they represent a great challenge for paediatricians, paediatric surgeons, and paediatric dentists. Since many of the lesions are benign and resolve on its own, no treatment is required. So, it becomes important that professionals involved in natal and neo natal care are able to promptly identify these lesions in order to avoid unnecessary therapeutic procedures and provides suitable information to the infant's parents about the nature of these lesions.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Fromm A. Epstein's pearls, Bohn's nodules and inclusion-cysts of the oral cavity. *Journal of dentistry for children.* 1967;34(4):275.
2. Morelli J. Disorders of the mucous membranes. Kliegman RM, Behrman RE, Jenson HB, Stanton BF. *Nelson Textbook of Pediatrics* (18th ed) Philadelphia, Pa: Saunders Elsevier 2007.
3. Paula J, Dezan C, Frossard W, Walter L, Pinto L. Oral and facial inclusion cysts in newborns. *Journal of Clinical Pediatric Dentistry.* 2007;31(2):127-9.
4. Friend GW, Harris E, Mincer H, Fong TL, Carruth K. Oral anomalies in the neonate, by race and gender, in an urban setting. *Pediatr Dent.* 1990;12(3):157-61.
5. Jorgenson RJ, Shapiro SD, Salinas CF, Levin LS. Intraoral findings and anomalies in neonates. *Pediatrics.* 1982;69(5):577-82.

6. Cataldo E, Berkman MD. Cysts of the oral mucosa in newborns. *American Journal of Diseases of Children*. 1968;116(1):44-8.
7. George D, Bhat SS, Hegde SK. Oral findings in newborn children in and around Mangalore, Karnataka State, India. *Medical Principles and Practice*. 2008;17(5):385-89.
8. Flinck A, Paludan A, Matsson L, HOLM AK, Axelsson I. Oral findings in a group of newborn Swedish children. *International Journal of Paediatric Dentistry*. 1994;4(2):67-73.
9. Regezi JA, Sciubba JJ, Jordan RC. *Oral pathology: clinical pathologic correlations*: Elsevier Health Sciences; 2012.
10. Moreillon MC, Schroeder H. Numerical frequency of epithelial abnormalities, particularly microkeratocysts, in the developing human oral mucosa. *Oral Surgery, Oral Medicine, Oral Pathology*. 1982;53(1):44-55.

Cite this article as: Madathil J, Negi BS, Kumar NR. Gingival cyst of new born: a case report. *Int J Contemp Pediatr* 2016;3:1129-31.