

Gingival Cyst of Newborn- A Report of Two Cases

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Citation of this Article: Dr. Sinjana Jana, Dr. Chiranjit Ghosh, Dr. Amitabha Chakraborty, Dr. Bibhas Dey, “Gingival Cyst of Newborn- A Report of Two Cases”, IJDSIR- February - 2020, Vol. – 3, Issue -1, P. No. 195 – 198.

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Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Gingival cyst of newborn, are usually seen as benign oral mucosal lesion which are transient in nature. The reported prevalence of these cysts in newborn ranges from 25-53%. These lesions are usually multiple, do not increase in size, and are self limiting. No treatment is needed as majority of these cysts degenerate and involute or rupture into the oral cavity within two weeks to five months of postnatal life. Since occurrence of congenital cystic lesions in the oral cavity is uncommon in neonates, they represent a great challenge for paediatric surgeons, and dentists. As the diagnosis is done on a clinical level, it is important to identify these cysts in order to avoid unnecessary therapeutic procedures and provide suitable information to the infant's parents about the nature of these lesions. Hence we present here two case reports of gingival cyst in newborn where it was visible after 12 and 15 days after birth.

Keywords: Gingival cyst, benign mucosal cyst, alveolar cyst.

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 newborn, which are transient in nature. Gingival cyst of the newborn is a cyst that arises from the rest cells of the dental lamina.¹

Occurrence

Gingival cyst appear as multiple or solitary, asymptomatic, whitish to yellowish nodules of 1-3 mm in diameter, round or oval in shape in infant's or newborn's oral cavity and are generally seen in the anterior part of the alveolar ridges of the maxilla or mandible. The cysts are usually present during the time of birth and are rarely seen after 3 months of age. They regress spontaneously, so no treatment is usually required.^{2,3}

Classification

Based on location these cysts are classified as “palatal” and alveolar cysts.” Those located at the midpalatine raphe are referred as palatine cysts while those present on the buccal, lingual, or crest of alveolar ridge are known as alveolar (or gingival) cysts.⁴

Prevalence

The reported prevalence of alveolar cyst in new born ranges from 25 to 53% while for palatal cyst is about 65%. 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.⁵

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. The cyst is lined by odontogenic epithelium which is lined by a thick layer of keratin which gives the cyst its yellow color. Majority of these cysts break by themselves a few days after birth, exuding keratin. In some cases they may remain for a period of several months and in such cases surgical treatment is deemed necessary.^{4,5}

Case Report -1

Parents of a 2-week-old neonate reported to the Department of Pedodontics and Preventive Dentistry with swelling in the left lower posterior aspect of the alveolar ridge of the mandible. Intraoral examination revealed a 2 cm × 2 cm exophytic, soft, yellowish lesion in the posterior portion of the alveolar ridge of mandible (Fig 1, Fig 2). On the basis of clinical findings, characteristic appearance of the lesion and its peculiar location a diagnosis of dental lamina cyst or gingival cyst of new born was made. Since these lesions are self-limiting in nature, the child was kept under observation after giving oral hygiene instructions to the parents and recalled for check up after a month.

Case Report -2

Parents of a 30 days old infant reported to the department with swelling in the left upper posterior aspect of the alveolar ridge of the maxilla. Parents also gave a h/o similar swelling and spontaneous rupture on the opposite side leaving a raw surface on the right upper posterior aspect of the alveolar ridge before reporting to the clinic (Fig 3, Fig 4)

On clinical examination, a 2 cm × 2 cm exophytic, soft, yellowish lesion was seen in the posterior portion of the left upper alveolar ridge of maxilla

Based on the findings, a diagnosis of dental lamina cyst or gingival cyst of new born was made.

Since these lesions are self-limiting in nature, the child was kept under observation after giving oral hygiene instructions to the parents. Parents were also advised to feed carefully so that no trauma occurs in the right upper posterior area.

Discussion

Alveolar cyst of the newborn is a benign mucosal condition of the oral cavity.⁶ The reported prevalence of alveolar cysts in newborn ranges from 25-53% .⁷ There was no association between the frequency of the cysts and gender, body weight or gestation age.^{8,9} Cysts located on the alveolar ridges are named Bohns nodules, after his description in 1866. In 1880, Epstein classified all palatal cysts as Inclusion cysts; while Bohn classified cysts in the alveolar ridges as mucous gland cysts.⁵ There is some confusion about the two eponyms and their relation to gingival cysts in neonates.

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 rests of Serres. Occasionally, they may become large enough to be clinically noticeable as discrete white swellings on the ridges.

Epsteins pearls are those that occur along the midpalatine raphe and are not of odontogenic origin, whereas Bohn's nodules are found on the buccal or lingual aspects of the dental ridges. Fromm pointed out moreover that Bohn was writing about remnants of mucous glands and had called them "mucous gland cysts". Gingival cysts, according to Fromm, were found only on the crests of the maxillary and mandibular dental ridges. For all this, the three terms are frequently used synonymously. These structures originate from 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 the dental lamina (rests of Serres).⁸ These cysts, if present at mandibular anterior ridge of newborn, can on rare occasions be incorrectly diagnosed as natal teeth.⁹

These cysts appear as small, isolated, or multiple, 1-3 mm sized white or yellowish white papules.¹⁰

In our case the cysts were located in the mandibular and maxillary alveolar ridges as stated by several authors and the color was yellowish too, which was somewhat similar to various literatures; it may be due to the keratin present in the cystic lumen

Majority of these cysts degenerate and involute or rupture into the oral cavity within two weeks to five months of postnatal life.¹⁰

However, it has been suggested that part of the cystic epithelium may remain inactive even in the adult gingiva.¹¹

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 also provide suitable information to the infant's parents about the nature of these lesions.

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Legends Figure

Fig 1: Yellowish lesion in the posterior portion of the alveolar ridge of mandible



Fig 2: Yellowish lesion in the posterior portion of the alveolar ridge of mandible



Fig 3: Yellowish lesion seen in the posterior portion of the left upper alveolar ridge of maxilla



Fig 4: 30 day old infant

