

Gum Lesions in Newborn Infant

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A one-month-old full-term male infant was evaluated in the outpatient department for oral lesions noted since birth. The infant was born to a primigravida mother at 39 weeks of gestation, weighing 3200 g (10th–50th percentile), via vaginal delivery. The birth hospitalization was uneventful, and the infant was discharged on exclusive breastfeeding. Numerous small whitish lesions were present on the outer gingival surface of the maxillary gums [Figure 1]. The lesions appear as small white pearly nodules, approximately 2–5 mm in diameter, with smooth margins. The lesions were present both as solitary nodules and in clusters.

No mucosal inflammation was present. The rest of the oral cavity was normal. On palpation, the non-indurated lesions were firm, without pain or tenderness. The parents reported good breastfeeding, and the infant was observed to be growing well. Over time, the lesions regressed in size. The infant's lesion

resolved by four months of age, leaving no residua. The systemic examination of the infant was within normal limits. Informed consent was obtained from the patient's mother.

Question

1. What is the most likely diagnosis?
 - a. Epstein's pearls.
 - b. Ranula.
 - c. Prenatal teeth.
 - d. Bohn's nodules.
 - e. Dental lamina cysts.

Answer

d. Bohn's nodules.

DISCUSSION

These nodules are diagnosed as Bohn's nodules based on their characteristic visual appearance and site of presentation.^{1,2} Bohn's nodules are benign keratin-filled inclusion cysts found in the oral cavity of newborns.³ They typically occur on the outer gingival surfaces, more commonly on the maxillary than the mandibular area. Other inclusion cysts include Epstein's pearls (located on the hard palate) and dental lamina cysts (at tooth eruption sites, alveolar edges).

Bohn's nodules are often confused with pustular lesions of the gums. However, careful examination reveals their keratin-filled nature, imparting a characteristic pearly appearance. They can be distinguished from common oral conditions such as natal teeth, congenital epulis, or ranula [Table 1].⁴ Bohn's nodules regress within a few months of age and rarely require surgical excision. No treatment is necessary, and reassurance to parents is important.



Figure 1: Multiple pearly white nodules over the maxillary alveolar surface in a newborn suggestive of Bohn's nodules (red arrow).

Table 1: Differentiating features of common oral lesions in newborns.

Condition	Site	Etiology	Histopathology	Treatment
1 Epstein's pearls (palatal cysts)	Midline, junction of hard and soft palate, tip of penis	Epithelial entrapment during development	Keratin-filled cysts	Spontaneous resolution
2 Ranula	Floor of mouth, below the tongue	Mucocele or retention cyst, blocked salivary glands.	Cystic cavity containing mucin, inflammatory cells, lined by non-keratinized squamous epithelium	Surgical excision, marsupialization, or cauterization
3 Prenatal teeth*	Lower gums, midline	Unknown, possibly pre-maturely erupted portions of the deciduous dentition	Hypoplastic enamel, irregular dentin, potential absence of Hertwig's sheath, and cementum	Observation or extraction as needed
4 Bohn's nodules (palatal cysts)	Buccal and lingual surfaces of the alveolar ridges	Salivary gland remnants	Keratin-filled cysts	Spontaneous resolution, rarely excision
5 Dental lamina cysts (gingival cysts)	Gingival edges	Remnants of the dental lamina	Keratin-filled cysts	Spontaneous resolution

*Prenatal teeth are present at birth, whereas neonatal teeth erupt within the first month of life.

Disclosure

The authors declare no conflicts of interest.

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