Gum Lesions in Newborn Infant

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A month-old full-term male infant was evaluated in the outpatient department for the oral lesions noted since birth. The infant was born to a primigravida mother at 39 weeks of gestation, weighing 3200 grams (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 of around 2-5 mm in size and with smooth margins. The lesions were present both as solitary nodules and in clusters.

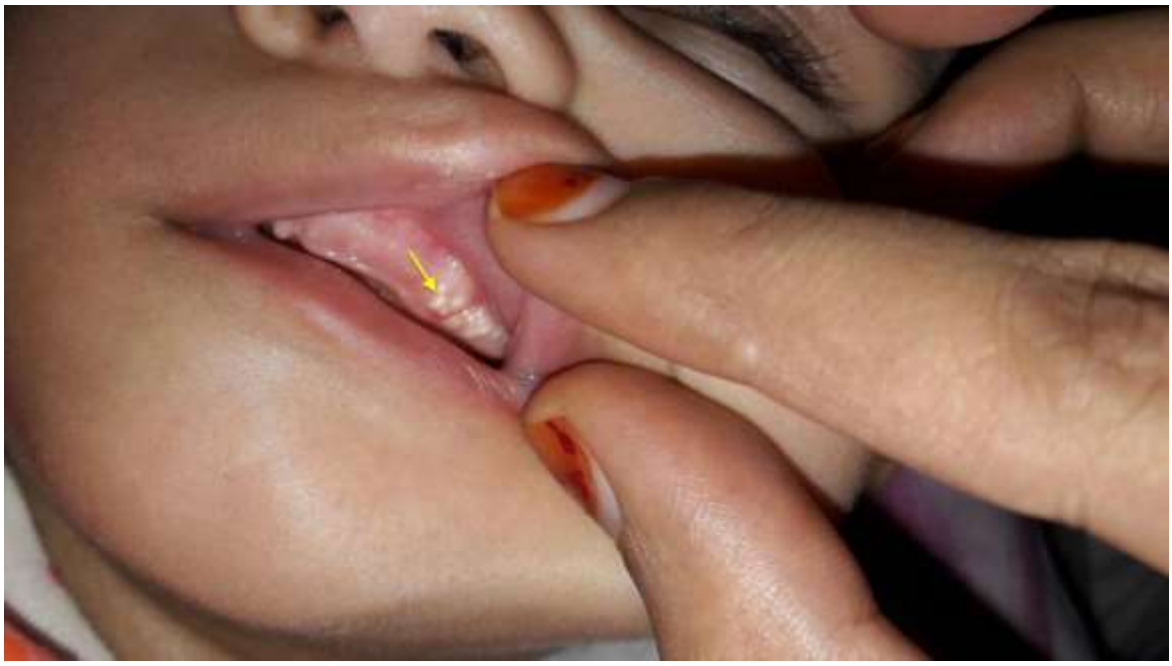

Figure 1: Multiple pearly white nodules over the maxillary alveolar surface in a newborn suggestive of Bohn's nodules (yellow arrow).

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 seen to be growing well. Over the period of time, the lesions were seen to be regressing in size. The infant's lesion regressed spontaneously by 4 months of age, leaving no residua. The systemic examination of the infant was within normal limits.

Question

What is the likely diagnosis?

a. Epsteins pearls

b. Ranula

c. Prenatal teeth

d. Bohn's nodules

e. Dental laminar cysts

Table 1: Differentiating features of the common oral lesions in newborns are presented

		Site	Etiology	Histopathology	Treatment
1.	Epsteins 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 moth, below the tongue	Mucocele or retention cyst, blocked salivary glands.	Cystic cavity containing mucin, inflammatory cells, lined by non-keratinised squamous epithelium.	Surgical excision, marsupialization or cauterization
3.	Prenatal teeth*	Lower gums in midline	Unknown, possibly pre-maturely erupted portions of the deciduous dentition.	Hypoplastic enamel, irregular dentin, and 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 laminar cysts (gingival cysts)	Gingival edges	Remnants of dental lamina	Keratin filled cysts	Spontaneous resolution

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

Answer

d. Bohn's nodules

Discussion

These nodules are diagnosed as Bohn's nodules based on their characteristic visual appearance and the site of presentation.[1,2] Bohn's nodules are one of the benign keratin filled inclusion cysts in the oral cavity of newborns.[3] They are typically present on the outer gingival surfaces, more commonly on the maxillary than the mandibular area. The other inclusion cysts are Epstein pearls (hard palate) and dental laminar cysts (tooth eruption sites, alveolar edges). Bohn nodules are often confused with pustular lesions of gums. However, if carefully examined, they are keratin-filled, which imparts a characteristic pearly appearance. These can be easily distinguished from common oral cavity conditions like natal teeth, congenital epulis or a ranula.[4] Bohn's nodules regress within a few months of age, and rarely may require surgical excision. Bohn's nodules do not need treatment, and reassurance to parents is of paramount importance.

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