

An Unusual Case of Bilateral Upper and Lower Oral Cavity Cysts in a Newborn

Frances Rodriguez Lara, MD^a, Jillian L. Chen, MS^a, Jennifer N. Shehan, MD^a, Jessica R. Levi, MD^a

Boston University Chobanian and Avedisian School of Medicine, Department of Otolaryngology – Head and Neck Surgery
830 Harrison Avenue Ground Floor Suite 1400, Boston, MA, USA

INTRODUCTION

While the majority of oral mucosal lesions in newborns are benign and self-resolving, delayed identification carries risk of fatal complications such as airway obstruction. However, congenital oral lesions are relatively uncommon with variable presentations, making diagnosis and treatment decisions difficult. Here, we present an unusual case of multiple oral mucosal cysts in a newborn.

CASE PRESENTATION

HPI: one-day-old male with **abnormal oral cavity cystic lesions** noted on newborn screening

Birth History:

- Vaginal, spontaneous delivery at 36 weeks and 2 days gestational age to a healthy 26-year-old G1P1 mother
- Birth complicated by shoulder dystocia
- No feeding or breathing difficulties or abnormal cry

Physical Exam

- **1 cm bilateral pedunculated cystic lesions attached to lingual surface of the mandibular gingiva (Figure 1a) and lateral hard palate (Figure 1b)**
- Four linearly adjacent well-circumscribed cysts on the left lateral hard palate were consistent with Epstein pearls (Figure 1b)
- No abnormalities noted elsewhere on mucosa, tongue, soft palate, or floor of mouth
- Remainder of physical exam noncontributory

Initial Assessment and Plan

- Bilateral upper and lower oral cavity lesions clinically diagnosed as **congenital gingival cysts**
- Close observation and outpatient monitoring recommended
- Patient and mother discharged two days later with no indication for acute intervention

CASE PRESENTATION CONTINUED

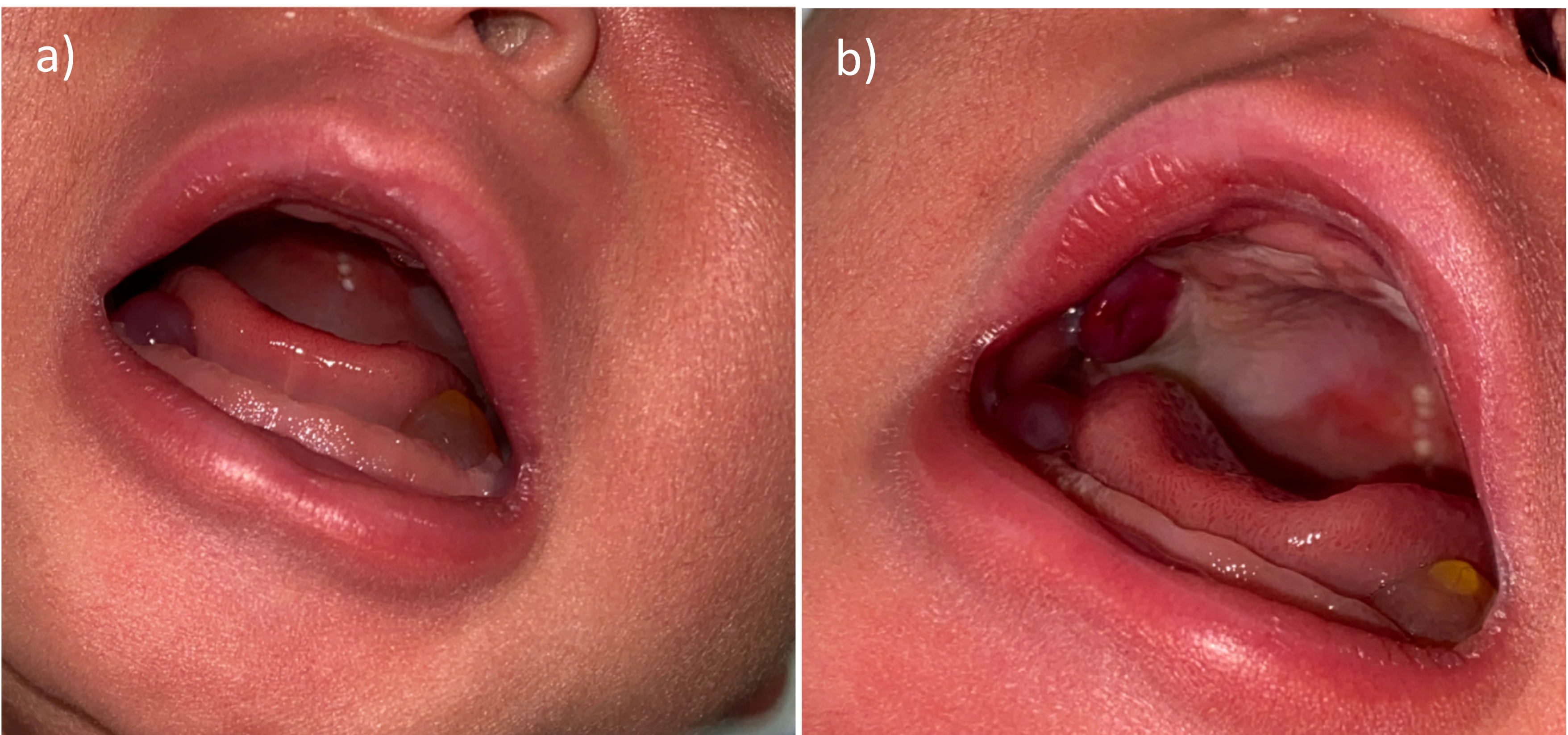







Figure 1. a) Image of bilateral mandibular gingiva lesions at initial presentation b) Image of right lateral hard palate and Epstein pearl lesions at initial presentation.

Table 1. Differential Diagnosis of Neonatal Oral Lesions

Cyst Type	Location	Size	Treatment	Example
Epstein's pearls	Median palatal raphe	1-3 mm	Self-resolving	
Gingival (dental lamina) cysts	Crests of the maxillary and mandibular alveolar ridges	1-3 mm	Self-resolving	
Bohn's nodules	Buccal and lingual aspects of maxillary and mandibular alveolar ridges	1-3 mm	Self-resolving (within 2 weeks of birth)	
Eruption cysts	Overlying or adjacent to erupting tooth	<1.5 cm	Surgical extraction of assoc. tooth	
Congenital epulis of the newborn	Maxillary alveolar ridge	0.4-3.4 cm	Surgical removal	

MANAGEMENT & OUTCOMES

3 Week FU:

- Cysts still present but remained asymptomatic

MANAGEMENT & OUTCOMES

- Lower gingival cystic lesions largely unchanged in size bilaterally
- Upper bilateral cystic lesions significantly decreased in size

4 Month FU:

- Further reduction in size of the upper lesions measured as 5-6 mm
- At time of writing, no further follow up recommended

DISCUSSION

- Despite consideration of multiple potential etiologies, a definitive diagnosis remains unclear, as our patient's oral lesions do not correlate entirely with any of our differential diagnoses.
- From our review of the literature, this is the first report of a single newborn having four oral cystic lesions.
- Surgical removal and/or biopsy would assist in establishing a histopathological diagnosis. However, our patient was otherwise asymptomatic with notable size reduction of the upper oral lesions after three weeks, suggesting the lesions are transient in nature.
- Given these findings, we felt it was clinically appropriate to avoid any risks with surgery and continue with careful observation.

CONCLUSIONS

The presence of oral cavity lesions in newborns may prompt concern from parents. Healthcare professionals should consider a **broad differential** when identifying such lesions and be able to assess if/when treatment intervention is indicated. Variabilities in presentation can make proper diagnoses difficult without histopathological confirmation. Thus, careful consideration must be taken to **avoid unnecessary medical/surgical intervention**.