

## INTRODUCTION

Congenital Epulis is a rare benign tumor of uncertain histogenesis that occurs exclusively at birth in newborn infants, which typically presents as pink, smooth, and lobulated. These tumors are extremely rare with a reported prevalence 0.0006%<sup>2</sup>. These tumors are usually solitary and confined to the maxillary or mandibular region, but cases have been reported of congenital epulis being present on the tongue and individuals having multiple tumors present<sup>3</sup>. The most common place for the tumor to arise is in the anterior maxillary alveolar ridge in the canine region. These can affect the quality of life of a newborn and therefore it is important for the clinician to make an appropriate diagnosis and manage the lesion accordingly.

## Treatment Options

1. Surgical intervention: Complete surgical excision under local anesthesia with active protective stabilization and pathology submission of tissue.
2. Non-surgical intervention: Tie a silk suture around the epulis to cut of blood supply under active protective stabilization.

## Case Study

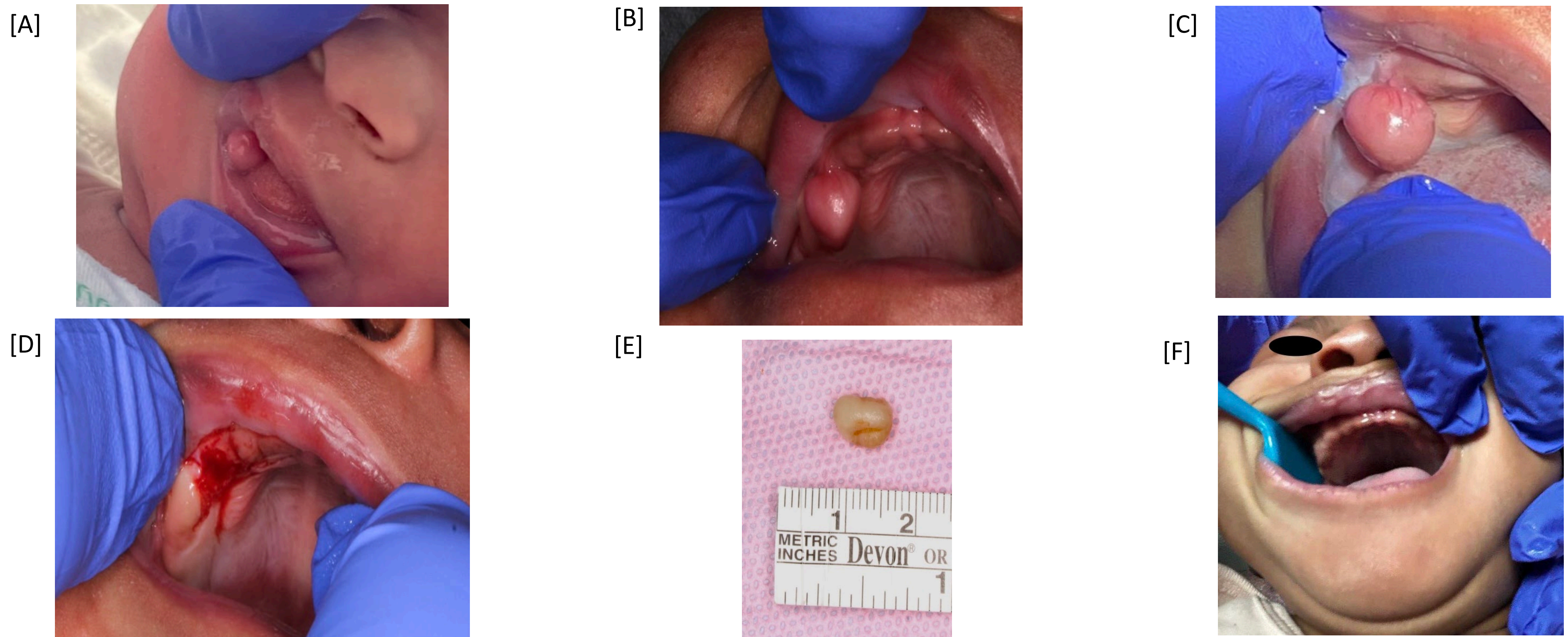
A 3-week-old female presented to Brookdale Pediatric Dental Clinic with a referral from the pediatricians at Brookdale Medical Center for diagnosis and treatment of the mass located on the anterior maxillary ridge.

## Medical/Social History

- No known medical conditions, not currently on any medications
- No known drug or food allergies
- Admitted to NICU for 24 hours for observation due to suspected sepsis
- Full-term birth
- Currently breast-feeding with no reported issues
- No difficulties with breathing
- Mother denies difficulty sleeping
- Primary caretaker: Mother
- No siblings

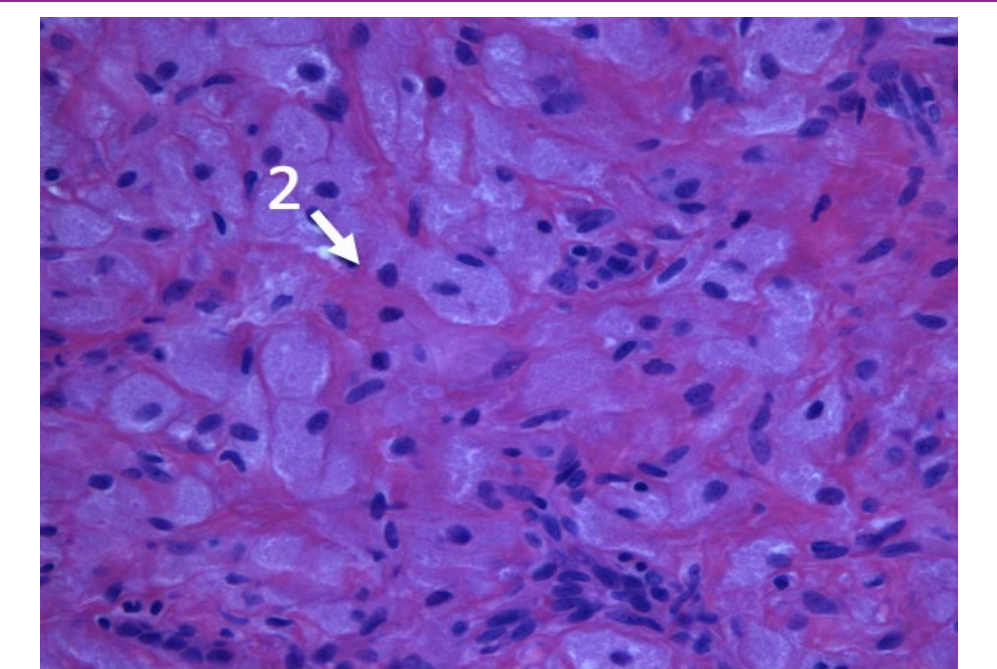
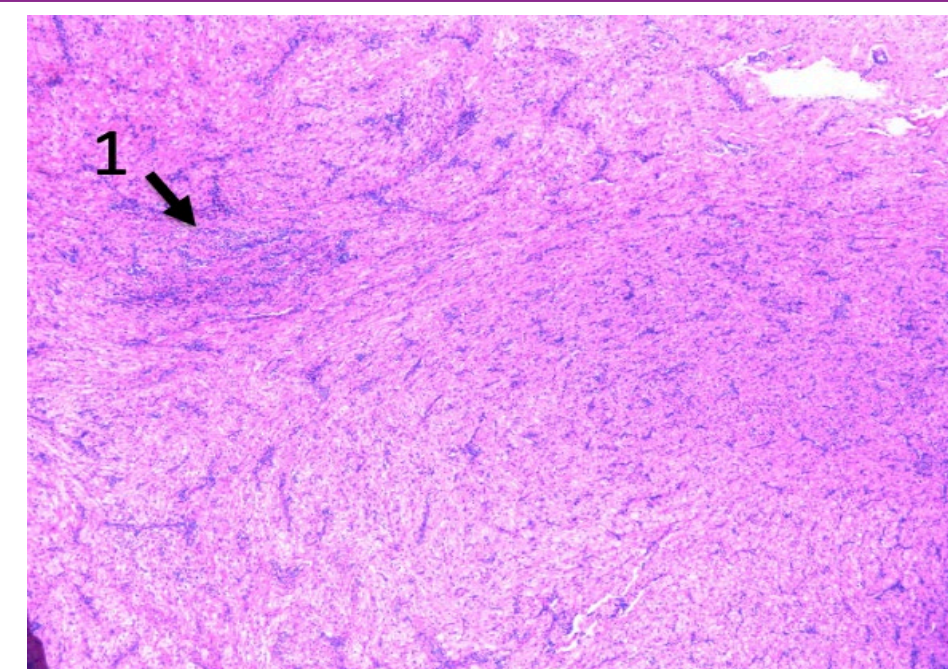
## Presentation of Congenital Epulis

[A/B] Congenital epulis present in the maxillary right canine region on a newborn child. [C] Pedunculated stalk associated with the congenital epulis. [D] Complete excision of lesion which was performed under local anesthesia. [E] Measurement of the congenital epulis tumor roughly 1cm x 1cm. [F] Follow up with no recurrence of the congenital epulis.



## Histology Report (From Excised Tumor)

- One specimen consisting of tan soft tissue measuring 1.0 x 0.6 x 0.6 cm submitted in formalin from maxillary right region.
- This sections show hyperplastic stratified squamous epithelium overlying a cellular tumor composed of aggregates of large, lightly staining eosinophilic cells containing a granular cytoplasm (Labeled #1)
- Within these cells are found uniform, round to ovoid basophilic nuclei. (Labeled #2)



H&E stained slide at 40x magnification H&E stained slide at 400x magnification

## Discussion

- Congenital epulis can vary in size from a few millimeters to more than 7 cm in diameter<sup>3</sup>.
- The tumor is more common in females with a 10:1 ratio<sup>1</sup>.
- Congenital epulis can be detected in utero during the 3<sup>rd</sup> trimester using an ultrasound or MRI<sup>4</sup>.
- Smaller lesions can be managed conservatively and occasionally undergo spontaneous involution<sup>3</sup>.
- After excision, the tumor typically does not reoccur<sup>2</sup>.
- Removal of the tumor does not affect the developing dentition<sup>3</sup>.
- No reported genetic link is associated with the tumor<sup>4</sup>.
- The differentiating factor between congenital epulis and a granular cell tumor is the absence of the S100 in the congenital epulis tumor<sup>3</sup>.
- If having trouble identifying this lesion you can stain for specific neuron specific enolase and vimentin<sup>3</sup>.

## CONCLUSION

Although congenital epulis is a rare benign tumor it is essential for early detection and removal if indicated. Some larger lesions can disturb the infant's airway, affecting breathing, closure of the mouth and feeding. Most of the time, a solitary pedunculated tumor is observed on the maxillary alveolar ridge. Occurrence is very rare once it is excised. It is important for practitioners to understand different pathologies that may arise in a newborn born that may affect quality of life and to manage them appropriately.

## References

