

Congenital epulis: prenatal diagnosis and delivery preparedness

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Background

Congenital epulis (granular cell tumor) is a rare benign tumor arising from the gingival mucosa of the alveolar ridge, with an estimated incidence of 0.0006% of live births. Prenatal diagnosis is uncommon and usually occurs in the 3rd trimester. Large lesions may obstruct the oral cavity, causing polyhydramnios or postnatal respiratory and feeding difficulties.

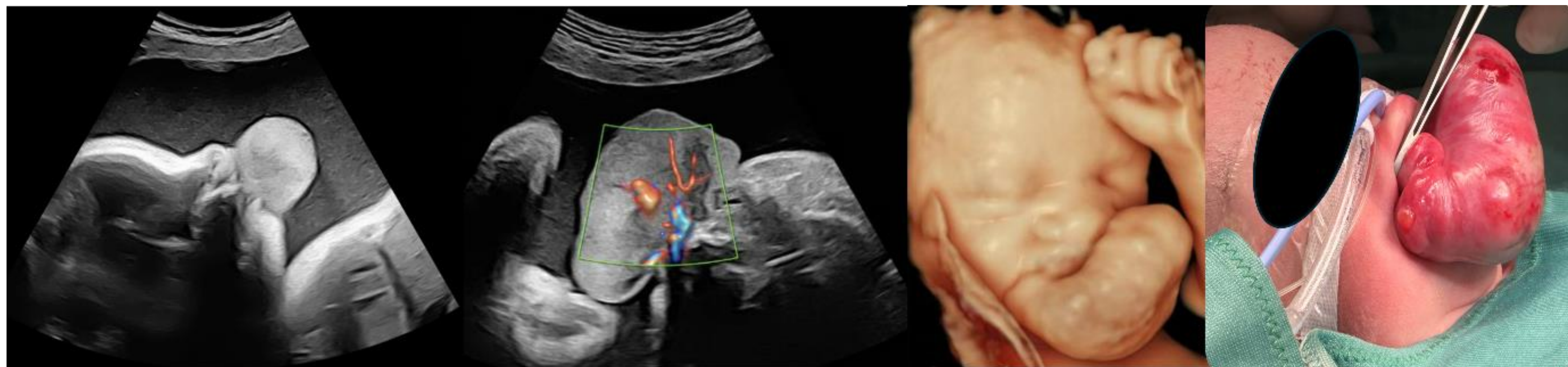


Figure 1: 2D, color Doppler, and 3D ultrasound appearance of congenital epulis, with postnatal correlation.

Case Description

A 30-year-old gravida with an otherwise uncomplicated pregnancy, normal 1st trimester screening, anatomical surveys, and chromosomal microarray was referred at 33+3 weeks following suspicion of a fetal oral mass on routine US. Targeted US demonstrated a well-defined exophytic mass measuring 61×37×44 mm arising from the anterior maxillary alveolar ridge and protruding from the oral cavity through the lips. Doppler imaging demonstrated prominent vascular flow with feeding vessels entering the mass through a pedicle, narrowing the differential diagnosis and suggesting epulis. Fetal MRI confirmed a soft-tissue mass originating from the maxilla.

A multidisciplinary team planned delivery with preparedness for a difficult airway scenario. Prenatal imaging was reassuring for airway patency, therefore EXIT was not required. Cesarean delivery at 36+3 weeks was performed due to preterm contractions and concern for bleeding from the vascular lesion. A 3100 g female newborn was delivered with immediate crying and no airway compromise. The mass was excised on the same day without deformity of the alveolar ridge. Histopathology confirmed the diagnosis.

Conclusion: Prenatal diagnosis of congenital epulis is rare. Recognition of the characteristic sonographic appearance and Doppler demonstration of a vascular pedicle can help narrow the differential diagnosis. Prenatal assessment of airway patency enables appropriate multidisciplinary planning and safe delivery without the need for EXIT in selected cases.