Prenatal diagnosis of duplication cyst of the tongue

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Objective

Congenital ranulas are rare epithelial retention cysts, which arise in the floor of the mouth. In this report, we describe a case of congenital ranula of the tongue diagnosed prenatally by ultrasound and confirmed postnatally by histology.

Methods

This is a case report.

Results

A 26-year-old primigravida was referred to our center due to an incidental finding of an oral cyst diagnosed during a routine scan at 26 weeks of pregnancy. The medical history of the parents was unremarkable. They were non-consanguineous. The first and second trimester scans performed at 21 weeks of gestation at another center were normal. Ultrasound scans were performed using a GE Voluson 730 Pro and Samsung. Ultrasonographic examination revealed an oral cystic lesion measuring 20 × 21 mm. The tumor appeared to be fluid filled and homogeneous, with well-defined limits. The most likely differential diagnosis was a congenital ranula or a thyroglossal duct cyst. Follow-up ultrasound scans performed every 2 weeks showed appropriate fetal growth and a normal amniotic fluid index. The most striking finding was that the fetus kept his mouth open during all examinations. Evaluation of the fetus revealed no other additional abnormal findings. Follow-up examinations every 2 weeks showed a slight enlargement of the lesion but no evidence of polyhydramnios. Later, at 34 weeks, the lesion appeared to be localized completely under the tongue and protruding out of the mouth. At this time it had reached a size of 3.0 × 4.2 cm and still appeared totally cystic sonographically. At 38 weeks the amniotic fluid volume was normal and the stomach was visible indicating that swallowing was unimpaired. Planned Cesarean section was performed at 38 + 3 weeks' gestation. Ex utero intrapartum treatment (EXIT) was performed and mucoid viscous liquid was aspirated from the lesion before the cord was clamped. The infant was born with a 5-min Apgar score of 9. The gross appearance of the lesion resembled a duplication cyst or a lymphangioma. At 27 days of age the infant underwent total excision of the mass. Histology of the mass was consistent with a mucous cyst. The patient was discharged 3 days after the operation unable to close his mouth. Currently the infant is 6 months old and has no facial deformity.

Conclusion

The differential diagnosis of cystic oral lesions involves other congenital oral masses. This group includes teratoma, palatal cyst, congenital epulis, dermoid cyst, ranula, and venous or lymphatic malformations. In this report, we describe the antenatal planning, delivery, and airway management of a newborn who received a prenatal diagnosis of a cystic tongue mass. Prenatal diagnosis of these lesions allows for an attentive multidisciplinary collaboration to prepare a careful birth plan that ensures airway protection in a neonate at risk for upper airway obstruction.