A 28-year-old woman, G3P2, was referred to our Prenatal Diagnosis Center after the diagnosis of an oral fetal lesion. The ultrasound revealed a 57x56x34mm heterogeneous solid tumour, with probable origin on the tongue and vascularization only present in the pedicle. Amniotic fluid was normal, and swallowing and sucking movements were seen. There was no evidence of airway patency compromise. Magnetic resonance showed a mass originating from the anterior part of the tongue with some areas of internal heterogeneity, possibly representing vascular structures. The multidisciplinary team decided to perform a cesarean delivery at 38 weeks. A large, well-defined bluish/purple exophytic mass arising from the apex of the tongue was confirmed right after birth, and a vascular anomaly was suspected. Precocious complete surgical excision and oral motor rehabilitation and feeding were performed. According to the 2018 International Society for the Study of Vascular Anomalies Classification (ISSVA), histological analysis confirmed a venous vascular malformation. Although rare, venous malformations represent the most common type of congenital vascular malformation. They are considered simple and slow-flow vascular malformations. Airway compromise may be a major concern when aerodigestive system involvement is present. Anatomic deformities and their functional and psychosocial impact are also important concerns. Herein, prompt recognition of an oral fetal mass provided the opportunity for cautious delivery and postnatal management. It highlights the importance of careful prenatal diagnosis in managing potentially life-threatening congenital malformations.

KEYWORDS Oral Mass, Partial glossectomy, Prenatal diagnosis, Vascular anomaly, Venous vascular malformation

Case report

A 28-year-old woman, G3P2, was referred to our Prenatal Diagnosis Center after the diagnosis of an oral fetal lesion at 35 weeks of gestation. The ultrasound revealed a 57x56x34mm heterogeneous solid tumour, with probable origin on the tongue and vascularization only present in the pedicle. Amniotic fluid was normal, and swallowing and sucking movements were seen. There was no evidence of airway patency compromise. Magnetic resonance showed a mass originating from the anterior part of the tongue with some areas of internal heterogeneity, possibly representing vascular structures. After discussion in the multidisciplinary team, including obstetrics, neonatology and pediatric surgery, cesarean delivery was performed at 38 weeks. The presence of a large well-defined bluish/purple exophytic non-pulsatile mass arising from the apex of the tongue was confirmed right after birth (Figures 1 and 2; Video 1). It was not warmer than the surrounding areas, and neither thrill nor bruit was detected. There was no airway compromise, and her Apgar scores were 8/9/10. A vascular anomaly was suspected, and a complete surgical excision with partial glossectomy was performed twelve hours after birth. She started oral motor rehabilitation and oral feeding 5 days after surgery, with good progression and tolerance. The histological analysis confirmed a 6,5x5,9x2,8cm venous vascular malformation, according to the 2018 International Society for the Study of Vascular Anomalies Classification (ISSVA).

Discussion

Vascular anomalies are commonly present in newborns. [1] They can be diagnosed prenatally, typically during the second and third trimesters of pregnancy [2,3]. A vascular anomaly should be suspected in any case of a fetal tumour and referred to an
experienced multidisciplinary team to ensure its careful evaluation, treatment and further management [2,3]. Unfortunately, they are frequently misdiagnosed [2,3].

Despite being a rare disorder, venous malformations represent the most common type of congenital vascular malformation, with an incidence of 1-2 per 10,000 births [4-7]. According to the 2018 ISSVA, they are included in the simple vascular malformations group [8]. In addition, they are considered slow-flow vascular malformations composed of non-proliferating anomalous ectatic venous channels [5].

They are always present at birth and can occur anywhere in the body, most frequently located in the cervicofacial area (40%), extremities (40%) and trunk (20%) [6,9,10]. As in our case, they may involve mucosal surfaces [4], and with such a significant percentage occurring in the head and neck region, airway compromise can be of particular concern if the involvement of the aerodigestive system is prominent [6,11]. Another concern is anatomic deformities and their impact on daily functional capacity, quality of life and complex psychosocial issues, which seem to affect both patients and their families [4,6,7].

Different therapeutic modalities are available for its management, including elastic compression, sclerotherapy, and surgical resection [12,13]. However, a precocious surgical resection was performed on this patient because of its bleeding risk with the subsequent possible compromise of the airway.

Conclusion

In this case, although the precise prenatal diagnosis was impossible, prompt recognition and characterization of a large fetal oral mass allowed cautious delivery planning and postnatal management. It highlights the importance of careful prenatal diagnosis in the management of potentially life-threatening congenital malformations.

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Author’s contributions:

J.P.N. was involved in the conception, design, literature search and drafting and approval of the manuscript. J.F.M., L.C., and C.R. critically reviewed the manuscript and were involved in the approval of the manuscript. A.V. critically reviewed the manuscript, supervised the study process, and was involved in approving the manuscript.

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Appendix

Video 1. Large oral mass arising from the apex of the tongue. The tongue body was apparently free from the injury. There was no airway compromise.

https://www.ejmanager.com/ mnstemp s/172/addl/172-1647580263-Video_1.mp4

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Conflict of interest

There are no conflicts of interest to declare by any of the authors of this study.

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Figure 1 and 2. Large well-defined bluish/purple exophytic non-pulsatile mass arising from the apex of the tongue.