EP 15.27 – Rare case of fetal oesophageal duplication cyst discovered in pregnancy: a case report

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Case description
A 27-year-old healthy primigravida was referred for a fetal cystic lesion in retrocardiac position measuring 2.6 x 1.6 x 1.3 cm. This lesion was discovered incidentally during an ultrasound evaluating growth in the setting of diabetes. At the time of referral, fetal growth was estimated at the 70th percentile. Amniotic fluid and fetal wellbeing were normal. No other anatomic anomalies were discovered.

A complementary fetal echocardiography was done. The mass appeared to be extracardiac and had a compressive effect on the left atrium without any evidence of outflow obstruction.

Magnetic resonance imaging (MRI) was performed shortly after and described an oval cystic lesion of 3.9 cm x 2.0 cm x 2.0 cm in the mediastinum, in close contact with the descending aorta, left atrium and pulmonary veins. Differential diagnosis at this time included a cystic lymphangioma and an oesophageal cystic duplication. Pregnancy follow up included a weekly ultrasound for fetal wellbeing, evolution of the lesion and hemodynamic evaluation.

The postnatal plan was observation in the neonatal intensive care unit (NICU) for hemodynamic evaluation and post-natal imaging of the lesion. Labor was induced in a tertiary care center at 39 weeks for gestational diabetes and the patient had a successful vaginal delivery of a 3,390-kg baby girl with an Apgar score of 9-10. The baby was observed in the NICU and was stable without any need for respiratory support.

A cardiac ultrasound done shortly after birth confirmed the antenatal findings of a retrocardiac cystic structure compressing the left atrium slightly without any hemodynamic impact.

The mass was reevaluated by MRI 3 days after birth. The oblong character and the absence of invasion of adjacent space favored the diagnosis of an oesophageal cystic duplication. Cystic lymphangioma also seemed possible but less likely since it normally invade multiple spaces. Serial cardiac echocardiography were performed since birth and none of them implied hemodynamic compromise. Until now, the infant doesn’t show any respiratory or gastrointestinal symptoms. Infant growth and development are normal to date. The next evaluation by MRI is planned at 5 months of age.

Discussion
Mediastinal masses are rarely seen antepartum and the diagnosis is challenging. Oesophageal duplication cysts and cystic lymphangiomas are some of the most frequent lesions and different imaging modalities such as ultrasound and MRI can help differentiate them.

Conclusion
Antepartum diagnosis of mediastinal masses required different imaging modalities and a multidisciplinary team approach. Both oesophageal duplication cysts and cystic lymphangiomas, yield a good prognosis. Treatment of these conditions should be tailored according to symptoms and might include surgical excision or a sclerosing agent for cystic lymphangiomas. Ultimately, the definitive diagnosis is the pathologic analysis of the lesion.