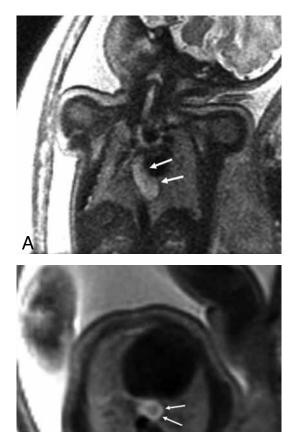
IMAGES IN CLINICAL RADIOLOGY



Prenatal MRI of an esophageal duplication cyst with polyhydramnios and right pleural effusion

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A 28-year-old woman at 32 weeks of gestation was referred to us for evaluation of a fetal mediastinal cystic mass detected during prenatal ultrasonography. MRI revealed a fluid-filled tubular structure extending from the carina along the presumed course of the fetal esophagus (Fig. A and B, arrows), polyhydramnios, and right pleural effusion (Fig. B, arrowhead). The diagnosis of esophageal duplication cyst was confirmed at the operation carried out after delivery.

Comment

An esophageal duplication cyst is the second most common duplication in the gastrointestinal tract, the first being ileal duplication (1), and can rarely be diagnosed in the fetus (2). The mass effect of duplication cysts on the adjacent lung or esophagus may cause respiratory distress or dysphagia in neonates and infants. A large esophageal duplication cyst in fetuses may manifest with polyhydramnios and pleural effusion due to compression of the fetal esophagus and mediastinum and consequently cause obstruction of the physiological swallowing of amniotic fluid by the fetus.

A tubular appearance, signs of gastrointestinal obstruction (polyhydramnios), and peristaltic movements on prenatal ultrasound and MRI may help in differentiating this cyst from other mediastinal cystic lesions such as type I congenital cystic adenomatoid malformation of the lung, bronchogenic cysts, thoracic neuroblastoma, teratoma, and neurenteric cysts (2).

References

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