

or hyperemesis. Detailed Ultrasound examination with 4 MHz transabdominal & 7 MHz endocavity transducers (Acuson-Aspen), revealed a normal fetus of 21 weeks with no congenital anomalies. But there was a large co existing intrauterine hypoechoic mass with multiple anechoic spaces, along the posterior wall. A small normal placenta was seen adjacent to the mass. A presumptive diagnosis of Hydatidiform mole co existing with a normal live fetus of 21 weeks was made on sonographic findings. After counseling, the parents decided to terminate the pregnancy, as the patient had a history of dilatation & evacuation for hydatidiform mole of at 12 weeks in the last pregnancy. A still-born fetus weighing 386 grams was delivered. Histopathological examination of the mass confirmed the diagnosis of complete hydatidiform mole.

Discussion: The incidence of co-existence of normal live fetus with a complete hydatidiform mole is uncommon, (1%–2% of cases). This condition is usually the result of dizygotic twinning, thus fetus is chromosomally normal. However, the fetal survival until term is unlikely because of the maternal complications of the mole itself. Women who have had a previous molar gestation are at increased risk to develop a similar subsequent lesion.

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Planing EXIT-procedure with fetal magnetic resonance imaging

J. Schwindt, C. Mittermayer, P. C. Brugger and D. Prayer

University of Vienna, Austria

Large cervical masses of the fetus are rare and can be life threatening after birth due to airway obstruction. A possibility to avoid these severe complications is the EXIT (Ex Utero Intrapartum Treatment)-procedure. This, however, requires detailed knowledge of the topographical anatomy of the structures involved to plan and perform this procedure successfully.

In the present case a giant cervical mass was detected by ultrasound at 29 + 5 weeks of gestation. Ultrasound imaging was most consistent with the diagnosis of a large cervical teratoma, but no sufficient statement was possible about cervical anatomy of the oropharynx and trachea.

Thus, fetal magnetic resonance imaging (MRI) was performed using a 1.5 Tesla imager, and T1 and T2-weighted images were acquired in three orthogonal planes. The MRI scans demonstrated a multicystic neck mass and a distorted oropharynx. The trachea was found to be shifted to the right and backwards but was not traceable from the middle of the neck up to the larynx. Based on this MRI findings it was necessary to perform the EXIT-procedure, realized at 30 + 5 weeks of gestation. Because of prior knowledge of the relevant topographical informations provided by the MRI surgery could be performed quickly.

Due to its excellent tissue contrast and the possibility to visualise anatomical details with high resolution fetal MRI was superior to ultrasound in detailing knowledge of the topographical relationships required to perform the surgical procedure.

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Prenatal diagnosis of Arnold-Chiari III malformation by ultrasound and Fetal Magnetic Resonance Imaging (MRI)

C. P. Werner*, H. Werner†, M. Brock‡, P. Daltro†, R. C. Domingues†, L. Rodrigues† and T. M. Fazecas†

*Brazil; †Clínica de diagnóstico por Imagem, Brazil and ‡Instituto Fernandes Figueira, Brazil

Aim: To report a prenatal diagnosis of Arnold-Chiari III malformation by ultrasound and MRI.

Case report: An 18 year-old woman, was referred to our department at 37 weeks of gestation with a suspicion of cystic hygroma by ultrasound in the second trimester. A new ultrasonography was

performed, showing a dilatation of the lateral ventricles with voluminous anechoic image in the topography of the fetal dorsum. The MRI was performed, showing an oval-shaped cystic formation, apparently septated, measuring 22 × 15 cm of diameter, in a left postero-lateral position at the cranial-cervical junction, isointense to the inner encephalic parenchyma, on T2w images that was thought to correspond to neural tissue, suggesting a cephalocele. The posterior fossa was reduced with insinuation of the cerebellar hemispheres around the brain stem. The lateral ventricles were dilated, with an altered morphology and irregularities in their edges. These findings confirmed the suspicion of Chiari III malformation. Two weeks later, the patient was subjected to a cesarian section, delivering a female baby, weighing 4.280 g, Apgar 9/9, presenting a voluminous integral cervical meningocele. The mother received hospital discharge 3 days after childbirth. A cranial ultrasonography taken on the following day and a computed tomography confirmed the findings of MRI. A surgical correction of the encephalocele was carried out a week later, with placing a ventricle-peritoneal shunt. Histologic examination showed a hamartomatous proliferation with vases and nervous tissue diffused and inespecific inflammatory infiltrated. At the age of one year, she presents a spastic tetraparesis with hyperreflexy, a serious psicomotor retardment, and visual difficulty.

Conclusion: MRI was a valuable complement to ultrasound to make the diagnosis of Chiari III malformation, which is a rare hindbrain malformation that are associated with a high early mortality rate, or severe neurologic deficit.

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Value of magnetic resonance images in the prenatal diagnostic of esophageal atresia

S. Ferrero Martínez, J. Sabrià, C. Esteve, S. Cabré, A. Vela and J. M. Lailla

Sant Joan de Déu Hospital, Spain

Introduction: The various forms of esophageal atresia constitute one of the most common gastrointestinal anomalies. Its incidence is about 1 of 3000–4000 births. The prenatal diagnosis can be suspected by ultrasound in fetuses with small or absent stomach or unexplained polyhydramnios. However, these images can appear in other malformations. We present a case where the diagnosis was based on the magnetic resonance (MR) findings.

Case: A 33 year-old healthy woman is attended for the first time in our hospital at the 26th. week of her second gestation for ultrasound diagnosis of polyhydramnios and nonvisualization of the stomach. The gestation had been well controlled with negative serologies and normal karyotype. The weekly ultrasound controls that were made detected normal fetal growing with a severe polyhydramnios (ALI reached to 65). The bubble of the stomach was little but visible and the PI of umbilical artery Doppler was repeatedly normal. The patient was hospitalised with tocolytic treatment, betametasona for lung maturity and reduction amniocentesis. Magnetic resonance (MR) suggested esophageal atresia with bronchial fistula. The fetus was born at 34 week by Cesarean for placental abruptio. The operative findings were laryngeal atresia and tracheal malformation with esophageal atresia type II. The newborn dead at 48 hours of lifetime.

Discussion: The ultrasound finding of small or absent stomach and polyhydramnios, in which is based the prenatal suspicion, has a positive predicting value ranging from 30 to 70% and a sensitivity about 80% for esophageal atresia. Some authors have tried to define data by ultrasound for the upper airway anatomy but there is no useful for esophageal atresia. The images of MR were determinant in the prenatal diagnosis and their description correlated with operative findings. In our opinion, MR must be considered in those cases where the ultrasound findings can be confuse.