P27.04
Resolution of hidrops in congenital cystic adenomatoid malformation of the lung after percutaneous sclerotherapy

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Congenital cystic adenomatoid malformation (CCAM) is a rare lesion of the developing fetal lung consisting of increased cell proliferation in the bronchial structures with lack of differentiation of the alveoli. The incidence is estimated to be 13 : 100,000. The mortality rate for fetuses hydrops before 30 weeks has been reported from 66–100%.
Case: A 26-year-old, G2, C1, was referred at 30 weeks with the diagnosis of hydrops. Ultrasound examination showed a 62 × 31 × 30 mm echogenic mass in the left lung, consistent with CCAM type III. Severe right mediastinal shift and fetal hydrops characterized by ascites, subcutaneous edema, pleural and pericardial effusion. Doppler studies showed tricuspid regurgitation. After extensive counseling, the patient agreed to FST with 3% Polidocanol and she gave informed consent. Institutional approval was obtained. Under ultrasound guidance, a 22-gauge needle was directed to the left fetal lung and 1 ml of Polidocanol was successfully injected into the CCAM. There was a significant left mediastinal shift. The fetus exhibited a normal heart rate following the procedure. Follow-up ultrasounds showed complete resolution of the hydrops within twelve days of the procedure. Lung mass remained same size. The patient was delivered by cesarean section at 39 weeks. A male infant was delivered, weighing 2,800 gr Apgar 7–8. After birth the infant developed respiratory distress and intubation was required and he was transferred to the NICU. The baby died 4 days later because of pulmonary hypertension.

Supporting information can be found in the online version of this abstract.

P27.05
Intrauterine aspiration of a large intrathorasic cystic mass in a fetus presenting with ascites

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Mediastinal cysts are very uncommon reported prenatal findings. We present a case, where intrauterine aspiration of a large mediastinal cyst resulted in a favorable perinatal outcome. Detailed fetal survey in a fetus presenting with ascites at 27 weeks of gestation revealed a 37 × 23 × 45 mm unilocular mediastinal cystic mass located behind the left atrium and displacing the heart anterior-laterally (Fig). On sagittal sections the cyst extended caudally close to the diaphragma. Ductus venosus (DV) Doppler analysis showed a reversed a-wave. To relieve pressure on the venous system, the cyst was punctured using a 22 G spinal needle. 10 mL of serose fluid was aspirated and sent for fetal karyotyping (46,XX). During intrauterine follow-up DV Doppler analysis returned to normal within 1 week and ascites subsided gradually over the next 2 weeks. Cyst size decreased over time to 17 × 18 × 38 mm. The rest of the pregnancy was uneventful and there was no need for repetitive aspirations. Spontaneous vaginal delivery took place at 38 weeks and a healthy female baby was born. Her neonatal period was without complication; there were no respiratory problems. Postpartum CT scans were compatible with a bronchogenic cyst. The child was not operated until the time of this writing. Although the final pathological diagnosis is missing, this case shows that decompression of a intrathorasic cyst can alleviate the hemodynamic effects and yield a good perinatal outcome.

Supporting information can be found in the online version of this abstract.

A large mediastinal cyst (asterisk) displacing the heart.

P27.06
Successful intrauterine medical treatment of nonimmune hydrops fetalis caused by fetal tachyarrhythmia

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The incidence of nonimmune hydrops fetalis (NIHF) is 1:1500 to 3800 deliveries. The perinatal mortality rate is as high as 50 to 98 per cent, and the etiology seems to be clear only in about 70 to 75 per cent of cases. Prenatal ultrasonography (US) is crucial in the diagnosis of hydrops syndrome, moreover, criteria of NIHF are strictly related to different parameters measured by US. There are at least 13 different causes of NIHF. Cardiovascular etiology is responsible for approximately one third of cases and includes structural cardiac defects, fetal arrhythmias, infectious causes, and cardiac tumors. The majority of congenital structural heart disease (CHD) may be diagnosed effectively with the visualization of the four-chamber view and of the ventricular outflow tracts of the fetal heart. Intrauterine fetal arrhythmias may be classified as tachy-, and bradyarrhythmias, as well as dysrhythmias. The prognosis of fetal cardiac function of the latter two groups is generally poor and the underlying etiology is often severe fetal CHD and/or chromosomal abnormality. With appropriate intrauterine and postnatal medical treatment the prognosis and outcome of pregnancies affected with severe fetal tachyarrhythmias may be fairly good. Most commonly used drugs are known as digoxine, cordarone, and adenosine. Authors report on a successful intrauterine intrafunicular medical treatment of nonimmune hydrops fetalis diagnosed at 22 weeks of pregnancy and caused by severe fetal tachyarrhythmia.

P27.07
Intrauterine intrafunicular treatment of nonimmune hydrops fetalis caused by fetal cardiomyopathia

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The incidence of nonimmune hydrops fetalis (NIHF) is 1 : 1500 to 3800 deliveries. The perinatal mortality rate is 50 to 98 per cent, and the etiology is clarified only in 70 to 75 per cent of cases. Prenatal ultrasound (US) is highly important in the diagnosis and follow-up of NIHF. Cardiovascular etiology includes structural congenital heart defects (CHD), fetal arrhythmias, infectious causes, and cardiac tumors. With invasive intrauterine and appropriate postnatal treatment the outcome of pregnancies affected with severe NIHF might be improved. Authors report on a successful invasive intrauterine intrafunicular medical treatment of NIHF diagnosed at 27 weeks of pregnancy and caused by fetal cardiomyopathia. Fetal echocardiography ruled out structural CHD. Although maternal TORCH, HSV, HBV, and parvovirus B19 serology was negative, impaired systolic fetal cardiac function and AV-valve insufficiency raised the possibility of fetal myocarditis. Percutaneous fetal umbilical blood sampling verified normal fetal karyotype, negative fetal viral serology, normal fetal cord blood-gas values, and ruled out fetal anaemia. After unsuccessful maternal digoxin treatment for one week written consent had