A case of fetal hydrothorax

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Objective
Fetal hydrothorax, either unilateral or bilateral, is a kind of pleural effusion that can be primary, most commonly chylothorax, or secondary where the effusion is a part of an immune or non-immune fetal hydrops. Fetal hydrothorax may resolve or progress to generalized fetal edema or, depending on the gestational age and time of delivery, this neonate may live and have a quite good prognosis. Simple pleural effusion in the neonatal period leads to a severe, often fatal, respiratory insufficiency, as a direct result of the pulmonary compression or due to a pulmonary hypoplasia, which is secondary to the intrathoracic compression syndrome.

Methods
We present a case of a fetal hydrothorax in a male fetus first recognized during the 27th gestational week. This was a 27-year old Albanian woman, secundigravida, in her first visit to our fetal ultrasound department. She did not have any documents from previous fetal screening for structural or chromosomal anomalies. Fetal biometry showed an appropriate for gestational age fetus, with big pleural effusion in the left hemithorax. This effusion was visualized as a unilateral anechoic fluid collection, which deformed the fetal chest and diaphragmatic contour. This mass inverted the diaphragm on the left side and displaced all thoracic and mediastinal structures to the contra lateral hemi thorax. Detailed fetal ultrasound detected no other structural abnormalities and the fetus had no other signs of hydrops. We also conducted an amniocentesis for genetic analysis and did not find any chromosomal abnormality. Termination of pregnancy and fetal intrauterine intervention (thoracocentesis or thoracoamniotic shunt placement) were offered and declined. During the next 3 weeks the diagnosed pleural effusion did not resolve spontaneously and the fetus developed ascites, bilateral pleural effusions and subcutaneous edema. She was admitted and two weeks later she was delivered due to fetal distress. The neonate died from acute respiratory distress syndrome 5 days later.

Results
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Conclusion
Fetal pleural effusions are not seen very often at our fetal ultrasound unit. They have very heterogenic etiology and pathogenesis and the most important thing is to distinguish primary from secondary pleural effusion. Good outcome is expected in fetuses when the effusions resolve spontaneously.