First Trimester Megacystis Due to Obstructive Uropathy

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Objective

Fetal megacystis is defined as a longitudinal bladder diameter of 7 mm or more in the first trimester. Its prevalence is 1 in 1500 pregnancies. Fetal megacystis may be associated with chromosomal and structural anomalies. Herein, we present a fetal megacystis case with poor prognosis.

Methods

A case report of First Trimester Megacystis due to Obstructive Uropathy.

Results

A 19-year-old woman, gravida 1, was referred at 14 weeks of gestation because of cystic mass in the fetal abdomen. Her medical history was uneventful except smoking. The patients' first trimester screening test was in the low risk area (1/10000). On ultrasound examination, the longitudinal diameter of the bladder compatible with megacystis was measured at 40 mm and the fetal kidneys were hyperechogenic. A male fetus with prominent phallus was evident. An umbilical cord cyst was seen. No other additional structural abnormalities were detected. We recommended invasive testing and an amniocentesis was performed. The fetal karyotype showed normal male fetus. Since the family refused termination, the patient was followed-up. In the 18th week, ultrasound revealed multicystic dysplastic kidney on the right side and bilateral hydroureter, together with bilateral increased echogenicity of the renal parenchyma. Accompanying oligohydramnios was also detected. Once again, termination of the pregnancy was recommended because of the poor prognosis. The family then accepted to terminate, and medical abortion was induced at the 19th week of gestation. Post-mortem examination revealed male fetus with prominent phallus, low-set ears and a cord cyst.

Conclusion

Since fetal megacystis can be associated with chromosomal and structural anomalies, karyotype analysis should be offered with a detailed ultrasound examination. Studies have shown that as the size of the bladder increases, the probability of chromosomal anomalies decreases, but the probability of developing obstructive uropathy and renal dysplasia increases. In the presence of hyperechogenic renal parenchyma, renal failure is inevitable and the fetus will be born as a candidate for renal transplantation.

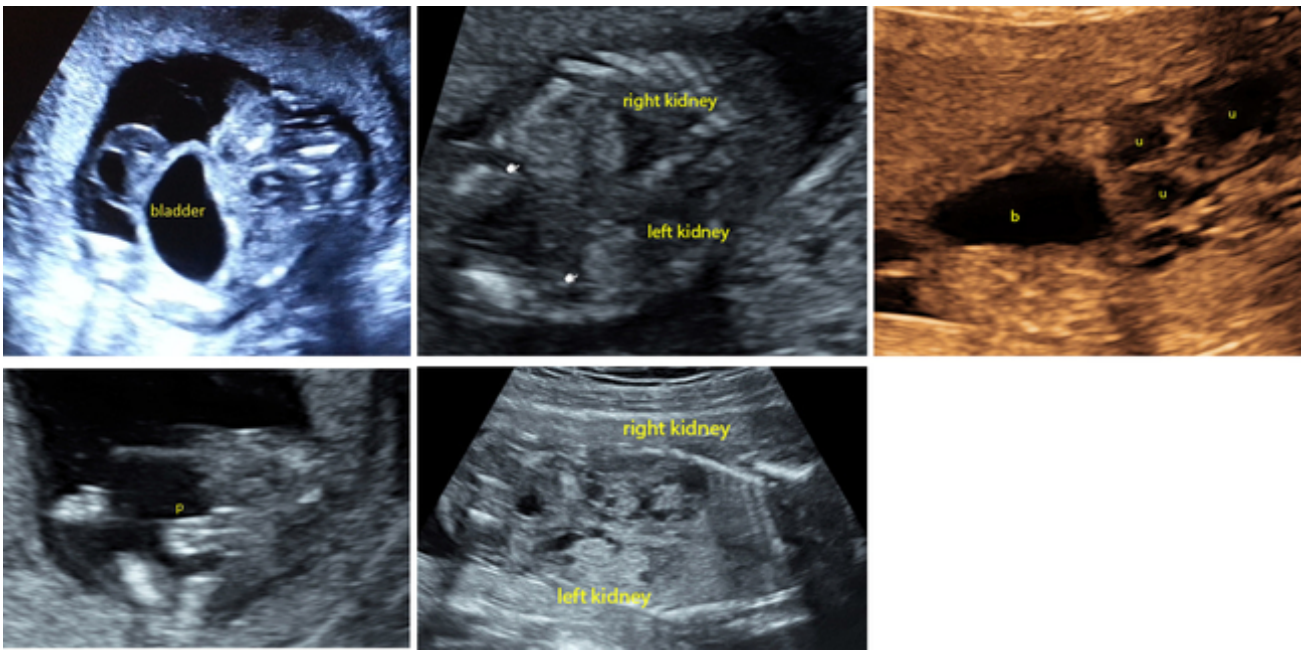

Figure 4. Postmortem view of the fetus