Serial vesicocentesis as successful treatment of LUTO

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Introduction

Fetal Lower urinary tract obstruction (LUTO) leads to renal insufficiency and pulmonary hypoplasia. We here present a case in which LUTO was treated with serial vesicocentesis.

Case Report

A 25 year old IIgIP was referred to our Fetal Medicine Unit in 14+3 weeks of gestation for first trimester screening. Megacystis as well as bilateral pyelectasis were observed.

In 15+2 weeks, an enlargement of the bladder with key-hole sign and urinoma of the left kidney were shown.

The parents wished a maximal therapy despite the high risk of renal failure. Vescicocentesis was performed in 15+3 and 16+2 weeks of gestation.

In the second trimester screening in 21+2 the bladder had a normal size and the urinoma was resorbed but the left kidney showed no parenchyma. Right kidney and amniotic fluid were normal. Induction of labour was started in 36+1 due to oligohydramnios.

After ventilation with CPAP for two days the newborn was respiratory stable. Cystography showed a hydronephrotic sacculated left kidney, right pyelectasis and bilateral vesicooureteral reflux due to urethral valves which were resected. Peritoneal dialysis was started due to raising retention parameters on day 5. On day 24 an ureterocutaneostomy was performed. On day 41 the infant was discharged.

Conclusion

Serial vesicocentesis led to a resolution of severe megalocystis in case of LUTO and thus prevented pulmonary insufficiency. The neonate developed renal insufficiency nevertheless. This case shows that vesicocentesis can be an alternative to vesicoamniotic shunting for treatment of LUTO if parents wish maximum therapy.