A 39-year-old primigravida was referred to our department for ultrasound evaluation of a large abdominal cystic mass and oligohydramnios. Previous fetal karyotyping at 16 weeks was 46,XX. Her medical and obstetric history was otherwise unremarkable. Repeat USG at our institution showed a 8x9 cm hypoechoic abdominopelvic cystic mass. The bladder was not seen separate from the mass lesion. The left kidney was hydronephrotic, while the right kidney was small in size. The bowel loops were dilated and multiple foci of calcified meconium were seen in the lumen. The amniotic fluid was severely reduced. Ambiguous genitalia was noted. (Figure 1.) Cloacal dysgenesis was suspected on the basis of the echogenic calcification in the colonic lumen as well as the cystic mass lesion.

MRI revealed 1. a large, irregular, abdominopelvic cystic mass with connection to bilateral UV junctions and non-visualization of meconium filled structure and rectum. The outlet of the cystic mass is at presacral region. The bladder and rectum were not seen separately in the pelvis. The colon was dilated and ended blindly in the abdominal cyst. The lesion was hypointense on T1W images, with foci of hyperintense signal on T1W images, suggestive of meconium. 2. Ambiguous genitalia was seen. 3. Right renal hypoplasia and left hydronephrosis, hydroureter; abnormal high position of the left UVJ, suspected ectopic ureter. 5. Severe oligohydramnios and small lung volume.

Conclusion Prenatal ultrasound diagnosis of cloacal malformation is challenging, with the diagnosis most often considered when a cystic pelvic structure is identified in a female fetus. The associated US abnormalities include urinary tract malformation, dilated bowel and abnormal spine. If cloacal malformation is suspected, fetal MRI is recommended as it offers improved pelvic soft-tissue delineation to allow greater accuracy in defining pelvic and perineal anatomy.