

Spontaneous Regression of Fetal Ascites with Meconium Peritonitis After Paracentesis: A Case Report

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Background

Fetal meconium peritonitis (MP) is a rare condition caused by fetal bowel perforation, leading to meconium leakage into the peritoneal cavity and an inflammatory response. This results in fetal ascites, typically detected on prenatal ultrasound, and may be accompanied by peritoneal calcifications. MP can result in outcomes from spontaneous resolution to severe morbidity. The role of paracentesis in managing fetal ascites due to MP is underexplored. This case describes MP-related fetal ascites that improved after paracentesis.

Case presentation

A 39-year-old woman at 24+2 weeks of gestation with antiphospholipid syndrome was referred for fetal ascites(Fig.1). Prenatal tests were otherwise normal. Ultrasound showed fetal ascites without hydrops or infection. Amniocentesis and paracentesis were performed, draining 30cc of fluid. Chromosomal study and TORCH PCR were negative, and ascitic fluid showed no abnormalities. Follow-up ultrasounds showed near-resolution of ascites and calcifications observed in the liver and abdomen(Fig.2).

A 3,150g male was delivered through cesarean section at 37+3 weeks. Postnatal ultrasound showed no ascites, but calcifications were present in the liver, spleen and abdomen confirming the diagnosis of MP(Fig.3). No bowel leakage was observed, and the infant was treated for neonatal jaundice(Fig.4). The infant was discharged on day 9 without complications.

Conclusion

This case highlights the potential role of paracentesis in managing fetal ascites due to MP, suggesting favorable outcomes without surgery when bowel perforation is absent. Early diagnosis and careful follow-up are essential for effective MP management.



Figure 1. Fetal ultrasound image at 24+2 weeks of pregnancy showing fetal ascites.



Figure 2. Follow-up ultrasound at 36+3 weeks, showing near-complete resolution of ascites and the presence of calcifications in the liver and intestines.

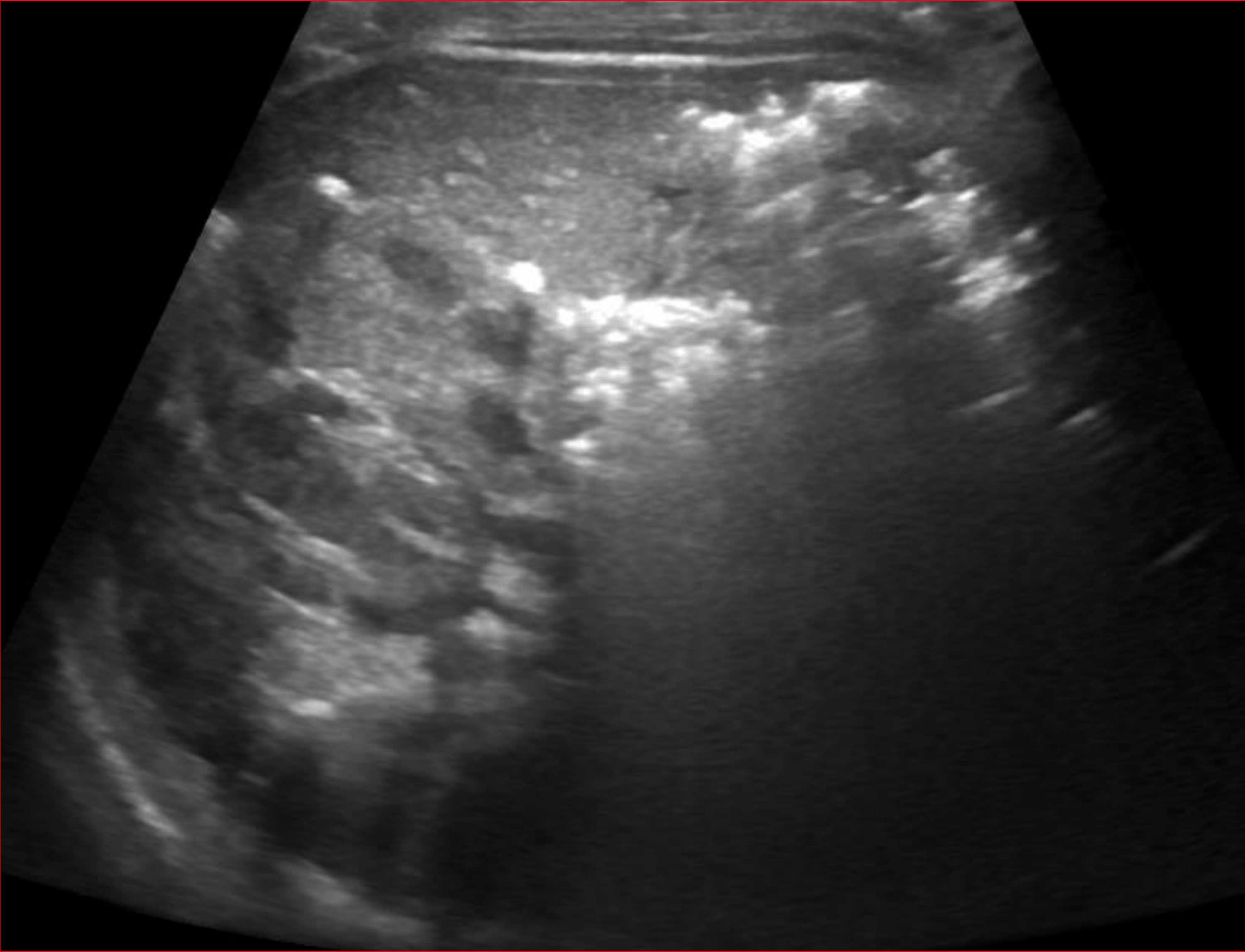


Figure 3. Postnatal ultrasound showing persistent calcifications noted in the liver and intestines.



Figure 4. Postnatal abdominal radiograph following administration of 6 cc of Gastrografin, showing intact bowel continuity without evidence of extraluminal leakage.