A rare case of persistent fetal intestinal hyperechogenicity – Question

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Keywords
Persistent intestinal hyperechogenicity, fetal ultrasound, gastric dilation, intestinal obstruction, meconium, midgut volvulus.

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How to cite

The answers can be found in the following article:
Case summary

A 24-year-old pregnant woman with an in vitro fertilization (IVF)-assisted pregnancy was examined at 12 weeks of gestation with a fetal ultrasound showing intestinal hyperechogenicity. The maternal anamnesis revealed 3 previous miscarriages, 2 due to ectopic pregnancies. Fetal karyotype and screening for cystic fibrosis performed on both parents were normal. Another ultrasound examination at 27 weeks showed fetal intestinal and gastric dilation and moderate polyhydramnios. The day before delivery, an ascitic effusion was found, not associated with pleural or pericardial effusion. At 29 weeks and 6 days of gestation, an emergency cesarean section was performed for absent variability of the cardiotocographic tracing.

The female newborn birth weight was 1,390 g. Apgar scores were 5 at 1 minute and 7 at 5 minutes. The patient was intubated in the Delivery Room and remained on mechanical ventilation until she was transferred to the Neonatal Intensive Care Unit (NICU), then she was ventilated in high-frequency oscillatory ventilation (HFOV). At the time of admission to the NICU, in addition to severe respiratory insufficiency (the saturation was at the lower limits, with FiO₂ = 1), at the clinical examination she had moderate pale skin and globose abdomen with generalized tenderness. The nasogastric tube was positioned correctly, and 6 ml of gastric fluid mixed with blood were aspirated. It was possible to insert the rectal tube only for 1.5 cm.

To better understand the case, anteroposterior (AP) (Fig. 1) and translateral (Fig. 2) chest-abdomen X-rays were performed.

Questions

1. What do you see in these X-rays?
2. Which further investigations would you suggest?
3. What is your diagnosis?

Declaration of interest

The Authors declare that there is no conflict of interest.