Antenatal diagnosis and management of fetal midgut volvulus: two cases report and review

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OBJECTIVE
To discuss about the prenatal diagnosis of intestinal midgut volvulus through the report of two cases and the follow up of the newborns.

MATERIAL AND METHODS
A descriptive study of fetal midgut volvulus through the report of two cases diagnosed and managed in our centre with posterior follow up of the newborns. Review of the current literature about antenatal diagnosis, management and perinatal prognosis of intestinal volvulus.

RESULTS
We report two cases of prenatal diagnosis or suspicion of fetal midgut volvulus.

1st Case
The first of them was a suspicion of intestinal obstruction at 40 weeks of gestational age, without signs of perforation or midgut ischemia. After the induction of labor and an eutopic birth, the newborn was operated at 5th day of life with final diagnosis of intestinal volvulus.

Despite having antenatal suspicion of intestinal obstruction, the diagnosis of intestinal volvulus was made intraoperatory. The lack of typical ultrasound findings of this pathology made it difficult to have suspicion. The fact that there was not vascular compromise allowed a planned intervention with good outcome.

2nd Case
Secondly, we present a case of a sonographic diagnosis of midgut volvulus at 32 weeks of gestational age. In this case there were signs of ischemia and perforation and an emergency caesarean section was performed.

Newborn was operated on the same day with devolvulation, excision of 45cm of perforated and ischemic midgut and ileostomy. The evolution was satisfactory and the patient was recently discharged.

CONCLUSIONS
Fetal intestinal volvulus is a rare but potential life-threatening condition in which small bowel or proximal colon loops around superior mesenteric artery. This condition may be antenataly suspected and diagnosed by sonography. It is a surgical emergency and delay in diagnosis and treatment can increase the morbidity and mortality to the fetus. Some of the clinical and ultrasound findings that can lead to an accurate suspicion are acute decrease in fetal movements, fetal heart rate monitoring showing decelerations and decreased variability, polyhydramnios (not always present), multiple filled loops of small bowel abnormal dilatated, whirlpool sign, increased peristaltism proximal to the loops or peritoneal calcification and pseudocyst when perforation occurs.

References: