Antenatal diagnosis of bowel dilatation in a ‘superior sided’ gastroschisis case with poor outcome

Kirbas A, Daglar HK, Biberoglu E, Ersoy AO, Danisman N
Zekai Tahir Burak Women’s Health Education and Research Hospital, Ankara, Turkey

Objective
Gastroschisis is the most common congenital abdominal wall defect with a reported incidence of 1 in 10,000 live births. It nearly always located to the right of the umbilical cord and left-sided gastroschisis is extremely rare. However, superior sided gastroschisis has been never reported in the literature. We report a baby with gastroschisis who had a defect on the superior side of an intact, normal umbilical cord complicated with excessive bowel dilatation in utero and postnatal poor prognosis.

Methods
A 22 year-old primigravida was referred to our perinatology clinic at 18 weeks’ gestation due to abnormal high level maternal-AFP levels in triple test. Our initial ultrasound scan at 18 weeks’ gestation revealed an echogenic mass protruding from the anterior abdominal wall, diagnosed as gastroschisis. No other fetal morphological anomalies were found in the anomaly scan. Serial ultrasound examinations were carried out at regular intervals from the gestational age of 28 weeks onwards. In the scans performed at 21, 26 and 30 weeks’ gestation only free loops of collapsed bowel and minimal hydramnios were seen. On ultrasound examination at 32 weeks’ gestation dilated intraabdominal bowels had not been seen on any previous scan were visualized. Transverse diameter of bowel was measured as 27 mm.

Results
The bowel dilatation disappeared the following week but it reappeared at 34th weeks’ gestation and disappeared again at 35th weeks. She was delivered through lower segment caesarean section due to non-reassuring cardiotocograph at 38th weeks’ gestation. A baby was delivered with Apgar score of 7 and 9, weighing 2850 grams. Primary closure of the defect and three ileostomies were performed after resection of 18 cm of bowel. Oral feeding has started on the 41th postoperative day and he is still in intensive care unit.

Conclusion
Gastroschisis occurs secondary to incomplete closure of the lateral folds during the 6-7 weeks’ gestation. The etiology still unknown and the prognosis of the infants is primarily determined by the condition and the length of the gut at birth which is difficult to assess antenatally. The prognosis is determined by antenatal events affecting intestinal length and/or function such as the presence of atresia, stenosis, infarction, volvulus or perforation. Some authors suggest a correlation between antenatal bowel dilatation and a poor neonatal outcome but the others did not find any correlation between the ultrasound finding of gastrointestinal abnormalities and adverse postnatal outcomes. Gastroschisis nearly always located to the right of the umbilical cord and left-sided gastroschisis is extremely rare. This is the first case superior sided gastroschisis that never has been reported in the literature.