Prenatal and neonatal outcome of hyperechogenic bowel: report on 184 prenatal cases

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Objective
The prognosis of prenatally diagnosed hyperechogenic bowel (HB) is poorly explored. The aim of the present study was to investigate prenatal and perinatal outcomes of fetuses with HB.

Methods
This is a prospective study (2011-2017) of all fetal HB cases evaluated in a tertiary referral centre. Fetal and neonatal mortality, intrauterine growth retardation (IUGR), fetal bowel dilatation, associated anomalies, genetic disorders (including cystic fibrosis) and congenital infection were evaluated. Chi-squared test was used as appropriate, p<0.05 was considered significant.

Results
We identified 184 fetuses with HB, of which 110 spontaneously resolved at follow-up US examinations. HB persistency (more than 2 foetal US) was associated with increased rate of congenital infection and bowel dilatation (14% vs 4%; p=0.04 and 52% vs 23%; p=0.0007, respectively). However, fetuses experiencing HB resolution still have 46% (51/110) chance to present clinical complications. Overall, we observed 5 (3%) cystic fibrosis, 10 (5%) other genetic disorders, 13 (7%) congenital infections, 5 (3%) neonatal deaths, 12 (7%) intestinal anomalies, 24 (13%) other malformations, and 19 (10%) IUGR. IUGR was more common when HB was discovered during III-trimester (II-trimester 7/122 vs III-trimester 12/62; p=0.008). Bowel dilatation often developed throughout III-trimester (II-trimester 29/122 vs III-trimester 35/62; p=0.0001).

Conclusion
Although spontaneous resolution of HB was commonly observed, a significant proportion of HB patients challenged serious problems. HB resolution does not protect from IUGR, bowel dilatation, genetic and malformative disorders, and risk of neonatal death. Active prenatal HB search is warranted to better inform parents, ideally reducing late morbidity and mortality.