Perinatal predictors for respiratory and gastrointestinal outcomes in children managed with isolated CDH

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Objective
Medium term outcomes in CDH patients managed at fetal treatment centers are undereported. We evaluated our population through age-specific self-reported respiratory and gastro-intestinal outcomes correlating these with perinatal variables.

Methods
This bi-centric prospective study surveyed families with isolated left-sided CDH children surviving >1 year. Families received age-specific validated questionnaires for gastro-intestinal and respiratory outcomes. Perinatal data included lung size (O/E LHR %), fetal intervention, GA delivery, birth weight, pulmonary hypertension, ventilator days, O2 >28 days, patch use and time to full feed. Respiratory scores were classified categorically or as continuous data; gastro-intestinal scores as continuous data. Participants and non-participants were compared. Univariate analysis was used to look for predicting factors with O/E LHR% correlated to self-reported scores.

Results
Two-hundred and twenty-five families were surveyed of whom 106 (47%) responded. Participating mothers were older (p<0.05) but had similar time lapse from the index pregnancy, rates of fetal intervention, numbers of inborn babies and gestational age of delivery. Eighty-nine patients were included, the majority being <8 years old (87%). Respiratory score was age group dependent, children under 5 years having higher scores than older children. O/E LHR was less likely to predicting for higher respiratory scores with increasing age. No predictors were identified for higher gastro-intestinal scores.

Conclusion
Medium self-reported respiratory and gastro-intestinal outcomes in CDH patients managed at a fetal surgery center are similar regardless of the degree of pulmonary hypoplasia in utero. Furthermore, ageing appears to have a beneficial effect on the evolution of respiratory symptomatology.