Stomach in contact with the bladder in left congenital diaphragmatic hernia

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Objective
To describe the prevalence of the stomach in contact with the bladder in left congenital diaphragmatic hernia (CDH) with non-herniated stomach.

Methods
Retrospective chart review of patients with left-CDH from a single university hospital in Argentina from July 2009 to March 2017 (updated from Aiello et al. Fetal Diagn Ther 2016;40(3):213-234). In the cases of left-CDH with the stomach not herniated in the thorax, we described the prevalence of the stomach in contact with the bladder, and we performed a review of the literature.

Results
In the study period, 93 cases of antenatally diagnosed CDH were managed in our unit, of which 81 were left-sided, 9 right-sided and 3 bilateral. In the left-sided CDH, the stomach was in the abdomen in 15/81 (18.5%) patients. Among these 15 cases, the stomach was in contact with the bladder in 9/15 patients (prevalence 60%, 95% CI 32-83). Literature review: Morgan et al. (J Clin Ultrasound. 2017;45(1):8-13.) reported that among 324 antenatally diagnosed CDH, 278 were left-sided and the stomach was in the abdomen in 22/278 (7.9%) patients. Among these 22 cases, the stomach was in contact with the bladder in 15/22 (prevalence 68%, 95% CI 45-85). Including the 2 series, the sign was present in 24/37 patients (prevalence 65 %, 95% CI 48-79).

Conclusion
The ultrasound sign of the stomach in contact with the bladder, indicative of a left CDH, is present in around two thirds of the stomach-down left CDH. The recognition of this sign may help to improve the detection rate in this subgroup of patients.