Prenatal diagnosis of intra-abdominal cystic lesions: accuracy of fetal ultrasonography
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Objective
To assess the diagnostic accuracy by ultrasound (US) of intra-abdominal cystic lesions and the need for postnatal surgery.

Methods
We reviewed all subsequent cases referred for an anechoic abdominal cyst from 2009 to 2013. Prenatal US was compared to postnatal diagnosis (imaging or surgery). The prenatal diagnosis was defined as ‘correct’ if a specific prenatal diagnosis or one of the possible diagnoses was confirmed postnatally, as ‘not confirmed’ if the postnatal examination revealed no abnormalities and as ‘incorrect’ if the postnatal diagnosis was different from those suggested prenatally.

Results
Seventy-three cases were included. The median gestational age at the time of diagnosis was 27 weeks (22. 8-33; 25-75th percentile). Associated extra-abdominal abnormalities were reported in 21 cases (28. 8%). Of 35 karyotypes, 4 were abnormal. A single diagnosis by US was achieved in 65 cases (89%): 17 were ovarian, 3 splenic, 31 gastrointestinal, 5 hepatobiliary, 5 genitourinary, 3 umbilical and 1 adrenal. Two or more alternative diagnosis were proposed in 8 of 73 cases. Prenatal diagnosis was deemed correct in 68 cases (92%), 2 were not confirmed (1 suspected volvulus and 1 umbilical vein aneurysm) and 3 cases remained postnatally undiagnosed (2 enteric duplication cyst vs lymphangioma and 1 enteric duplication cyst vs hepatobiliary cyst). No incorrect diagnoses were reported. A MRI was performed in 23 cases (31. 5%) achieving 20 correct diagnoses. Compared to US, 1 MRI prenatally corrected a diagnosis of sacrococcygeal teratoma and 1 falsely diagnosed an intestinal volvulus. After birth, 34 cases (46. 5%) required surgical correction, 26 (76%) were obstructive gastrointestinal lesions, 4 genitourinary, 2 ovarian and 2 hepatobiliary.

Conclusion
Prenatal US diagnostic accuracy of intra-abdominal cystic lesion origin is high (92%). Surgery is required more often in gastrointestinal or genitourinary cystic lesions.