

Prenatal diagnostic accuracy of the origin of the fetal intraabdominal cysts

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Objective

To assess if the location of the fetal IAC can ascertain the origin and hence predict the prognosis and postnatal outcomes.

Methods

This is a retrospective study of prospectively collected data from a tertiary centre in South India from June 2005 -December 2022. 124 fetuses with intraabdominal cysts (IACs) from 12-36 weeks of pregnancy were identified from the database. Cysts related to the bladder and stomach were excluded. Our cohort was divided into subgroups according to prenatally suspected origin of the lesion by dividing the fetal abdomen as Right Upper (RU), Left Upper (LU), Midline (M), Right Lower (RL) and Left Lower (LL) quadrants. Associated anomalies if any, were noted. Postnatal outcomes were obtained by telephonic interview of the parents.

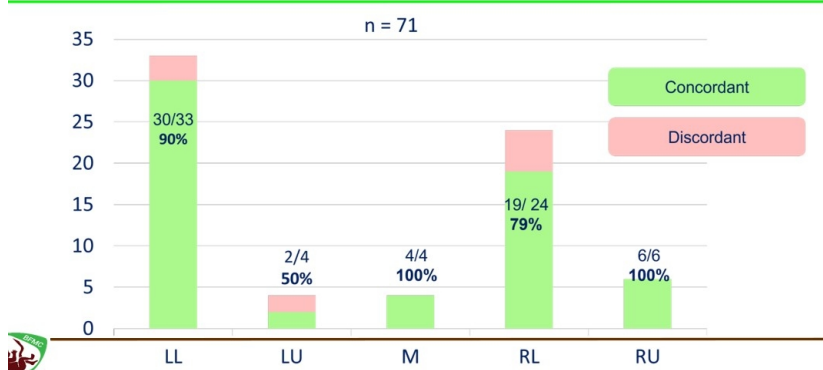
Results

Most common gestational age at diagnosis was in the third trimester. (63/124, 50.8%). 7 terminations, 3 neonatal deaths and 1 lost to follow up were excluded from further analyses. 113 fetuses with IACs had postnatal follow up of the cyst by ultrasound imaging. 42/ 113 (37.2%) IACs resolved antenatally or in the immediate postnatal period, confirmation of origin was not available for these. 47, 11, 5, 39 and 11 IAC were located in the LL, LU, M, RL, RU respectively. Most frequent IAC as per location were gonadal cyst (78%), omental cyst (25%), mesenteric cyst (100%), gonadal cyst (58%) and choledochal cyst(100%) in LL, LU, M, RL and RU. 30/33 (90%), 2/4 (50%), 4/4(100%), 19/24 (79%) and 6/6 (100%) in LL, LU, M, RL, RU quadrant were concordant with antenatal diagnosis. 3/33(0.09%), 2/4(50%), none, 5/24(20%) and none in LL, LU, M, RL, RU quadrant were discordant with the antenatal diagnosis. 9.7% of IACs were found to be associated with other anomalies with dilated loops of bowel being the most commonly associated anomaly. Postnatal surgery was required in 17/71 fetuses (23%). 3/17 (17.6%) had post-surgical complications, 1 died soon after the surgery. Long term surgical outcome was good in 94.1% babies. (1 post surgical death, 2 minor post surgical complications).

Conclusion

Fetal cystic abdominal lesions are not infrequent findings during antenatal ultrasound. Wide variability of origin of cysts often leads to difficulty in classifying them and predicting the prognosis. A systematic approach to IAC includes exclusion of associated anomalies and giving a differential diagnosis based on the location – “most common” followed by other possibilities. Overall concordance in our study was 85.9% (best in the M & RU quadrants). Most IACs can be managed conservatively and the ones requiring surgery tend to do well. This study helps to make a diagnosis based on the location and hence the prognosis in terms of the need for surgery and long term outcomes. Knowing the proportion of correctly diagnosed lesions may allow more informative counselling to parents and may improve the management and outcome of these pregnancies.

Results – 2 - AN: PN Concordance



Results – 3 - Prevalence of IAC as per location & most common origin

