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Fetal cholelithiasis outcome. A report of 2 cases

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Objective

Retrospective review of prenatally diagnosed fetal cholelithiasis and its prenatal and postnatal outcome.

Methods

Retrospective review of prenatally diagnosed fetal cholelithiasis during a period of ten years (2007-2017) in the Obstetrics Department of Hospital del Mar. Analysis of the fetal and neonatal outcome.

Results

Only 2 cases of fetal cholelithiasis were found during a 10-year-period. First case: 24-year-old pregnant woman from Paraguay, with uncomplicated pregnancy until the third trimester had the first ultrasound in our hospital at 35 weeks and it showed biliary sludge without other alterations. A 3610 g male was born at 40 weeks by caesarean section without any complications in the neonatal period. Follow-up ultrasound at one month of age showed a gallstone of 5 mm; at 2 and 3 months of age the ultrasonographic exam showed a decrease in size and a complete resolution was observed at 5 months. Second case: 36-year-old pregnant woman from Argentina, admitted to our hospital at 30+3 weeks with threat of preterm delivery with good response to tocolytic treatment. During a routine growth scan at 37+5 weeks, we observed a small echogenic focus within the fetal gallbladder suggestive of a gallstone. A 3605-gram-male infant was born at 39 weeks by vaginal delivery without complications in the neonatal period. The case was lost to follow-up.

Conclusion

Fetal cholelithiasis is a rare finding but with an increased incidence in recent years due to the use of ultrasound as a routine examination during pregnancy. It is an incidental and benign finding that usually resolves before 6 months of life without any treatment (1). There are some authors who have described a series of both maternal and fetal factors that are related to this entity, for example consumption of narcotics or placental haematoma that results in an increase in indirect fetal bilirubin. Another factor involves maternal estrogen, which increases the secretion of cholesterol while depressing the synthesis of bile acids allowing the formation of lithiasis (7). There are several studies of fetal gallstones in siblings, suggesting that there could be maternal factors involved (4, 5, 6). Regarding possible fetal causes, haematological anomalies such as haemolytic anemia or group incompatibilities and biliary tree anomalies have been associated (3). Even so, most published cases are not related to any apparent cause, as in our report (7). There were also no sequelae in the long-term follow-up. Differential diagnosis should be made with hepatic calcifications and other entities such as meconium peritonitis, hepatoma or hemangioepithelioma of the gallbladder. (3. 6). It is recommended to carry out a postnatal ultrasound to verify the persistence or resolution of the gallstones or biliary sludge. In most cases, it is a self-limiting finding over time and tends to resolve spontaneously without the need for treatment. Some authors propose the use of deoxycholic acid suggesting that this drug could help to solve the stones; however, most recent series show no significant differences between treated and untreated newborns, adding possible side effects of the drug. Therefore, as it is a benign entity that usually does not cause any problem in the newborn and tends to resolve, it is recommended not to use this drug but to perform an ultrasound follow-up until the complete resolution (6). The time to resolution occurs usually during the first year of age (5).