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Case Report

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Prenatal Diagnosis of Fetal Ovarian Cyst. Report of a Case

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ABSTRACT

Background: Prenatal diagnosis of abdominal cysts is relatively common; The ovarian cyst is the most predominant chemical lesion of abdominal masses in female fetuses; however, given the wide variety of intra-abdominal masses, determining the origin of the chemical lesion is the most frequent diagnostic challenge, especially to establish fetal prognosis. .

Clinical Case: 30-year-old patient, who went to the emergency department for uterine contractions, no prenatal control, during the ultrasound evaluation, polyhydramnios and an intra-abdominal cystic lesion measuring 4.9 x 3.9 cm, without septa and with a thin wall were documented, the area was intentionally reviewed. renal, hepatic, and intestinal; Without involvement of these structures, female genitalia were confirmed, concluding in a probable ovarian-dependent cyst, admission for resolution of the pregnancy via the abdomen due to pelvic presentation and labor, at birth the diagnosis was confirmed.

Conclusions: Timely detection of an intra-abdominal chemical injury and ecological follow-up improve perinatal prognosis.

Keywords: Fetal Ovarian Cyst, Fetal Ovarian Torsion, Ovarian Cyst, Prenatal Diagnosis, Complex Fetal Ovarian Cyst

Background

Prenatal diagnosis of abdominal cysts is relatively common, however, determining the origin of the cystic lesion is probably the most common challenge [1]. The ovarian cyst is the predominant cystic lesion of abdominal masses in female fetuses, representing 20% of abdominal masses detected in postnatal life which corresponds to an incidence of 1 in 2600 pregnancies this ultrasound finding is usually detected in the third trimester, especially after 28 weeks, the etiology of the development of ovarian cysts in fetal life is uncertain, however, it has been reported that fetal stimulation of follicle-stimulating hormone by maternal estrogens and follicle-stimulating hormone human chorionic gondatropin play a fundamental role in its genesis, these are derived from ovarian follicles, Pryse et al reported that during ovarian development at approximately 28 weeks, Graafian follicles can be observed, which is why ovarian cysts are possibly observed in the ultrasound from the third trimester, other entities have been described as possible causes of ovarian cystic development DeSA, et al, in a review described diabetes mellitus, alloimmunization and preeclampsia as associated conditions due to an excessive serum increase of hormone chorionic gonadotropin and theca luteinization of the postnatal ovary [2-6].

The ultrasound findings correspond to a cystic mass located laterally in the fetal abdomen, the identification of the normal urinary and gastrointestinal tract possibly makes this a challenge since in some cases due to the increase in the dimensions of the cystic mass it is not possible to adequately determine the origin of the lesion, diagnostic complementation with magnetic resonance being necessary, however, observing a unilocular, anechoic, thin-walled cystic mass, unilateral more frequently and on some occasions with the presence of an internal septum and of course a female fetus, support the diagnosis of a fetal ovarian cyst, its identification is not only important to determine the origin of the lesion, but also to recognize when it is an ovarian lesion complicated by torsion, which is why establishing the diagnosis allows us to determine fetal prognosis, which is why we report this case [7-9].

Clinical Case

A 30-year-old patient, who went to the emergency department due to uterine contractions, no prenatal control, no previous ultrasounds, with a history of previous childbirth without apparent complications, the pregnancy was determined by the date of last period at 38 weeks, during the evaluation. Ultrasound documented polyhydramnios and an intra-abdominal cystic lesion measuring 4.9 x 3.9 cm (Figure 1). without septa and with a thin wall, the renal, hepatic, and intestinal area is intentionally reviewed; Without involvement of these structures, female genitalia were confirmed, concluding in a probable ovarian-

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dependent cyst. However, in the face of full-term gestation and the first period of labor, magnetic resonance imaging was not requested as part of the study protocol, and she was admitted for resolution of the pregnancy due to pelvic presentation and labor, perinatal results without complications, at birth an abdominal ultrasound with an endovaginal transducer was performed (Figure 2). observing simple left ovarian cyst, discharge without complications with appointment to pediatric outpatient clinic and surgical scheduling date.

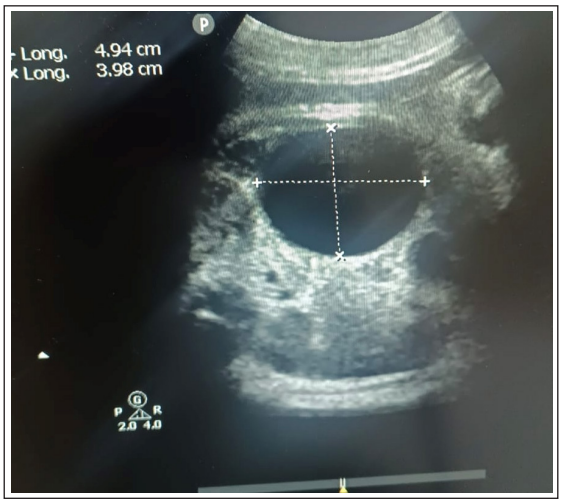

Figure 1: Left Ovarian Cyst Prenatal

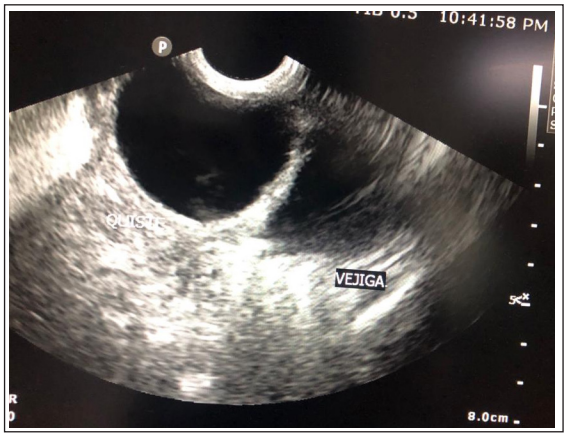

Figure 2: Left ovarian cyst. Postnatal

Discussion

Fetal ovarian cyst is the most frequent prenatal diagnosis given that its presentation is in the third trimester. The challenge is to determine the origin of the intra-abdominal mass, since its differential diagnoses include renal, intestinal, and hepatic origin; such as choledochal cyst, intestinal duplication, meconium cyst, among many others, therefore, it must be considered that in the case of a female fetus, according to the ultrasound findings, ovarian cyst and hydrocolpos should be suspected, however it is not only identify the origin, but rather establish the prognosis whose greatest determinant of the perinatal outcome is the appearance of the cyst and its size, first it must be established that if an ovarian cyst smaller than 20 mm is observed, it is considered a physiological dominant ovarian follicle, that is That is to say, when a cystic lesion measures more than 20 mm it is abnormal, another pathognomonic finding is the daughter cyst, which demonstrates a thin-walled, small and regular cystic lesion within another cyst, which gives it a sensitivity of 82%. specificity of 100% and positive predictive value of 100% such that identifying this lesion guarantees that it is a cystic lesion of ovarian origin, ultimately two groups of cysts must be identified, simple and complex; the simple ones are generally anechoic, unilocular, thin-walled and larger than 20mm, as for the complex ones, the characteristics are thick wall, with hyperechoic content, septate, with evidence of intracystic sediment [10-15]. In a systematic review by Bascietto, et al. It is established that when there are cysts smaller than 40 mm the resolution at birth was 84.8% and when the appearance is simple 64.4%, anatomical changes have also been seen with respect to the evolution of the cyst from simple to complex or with torsion and intracystic hemorrhage, which occurs more frequently in cysts larger than 40 mm; The incidence of cystic torsion ranges from 21.8% and of these, 6% corresponds to simple cystic lesions and 44.9% to complex ones, with a higher risk when they exceed dimensions of 40 mm. Prenatal management by aspiration is controversial, since the change in appearance after aspiration from a simple to a complex cyst is 7.9%, the risk of fetal loss or preterm delivery is 5.1% and 21.8% of them underwent surgery. postnatal, and the risk of recurrence after puncture is 37% of cases, for their part Bagolan, et al [16]. He recommended prenatal aspiration when the cyst is greater than 50 mm or when the cyst is growing rapidly, that is, 1 mm per week, demonstrating that 88% of the fetuses who underwent aspiration resolved in 88%. of the cases, while 14% required postnatal surgery, therefore the evidence about this intervention is not conclusive, so cases must be reserved and individualized, in terms of postnatal surgical management of fetuses with a higher risk of resection [17]. surgical are those that carry complex cysts in 64.8% of cases and when they are greater than 40 mm. With respect to the role of magnetic resonance imaging, whenever the resource is available, it is essential to request it to establish the cystic origin or when during the evaluation the fetal position is not adequate or when there is a decrease in the amniotic fluid, which helps to improve the diagnosis [18,19]. Once considering the diagnosis of a probable ovarian cyst, the most important thing is the follow-up ultrasound. The associated structural anomalies are very rare. However, serial evaluation allows us to identify structural changes in the cyst and identify possible complications such as polyhydramnios. which occurs in up to 18% of cases, especially in cysts larger than 6 cm, the evidence of ascites or cystic torsion, in terms of management as mentioned above is controversial, in addition, practically the majority have a regression at birth, in our particular case, the diagnosis was made late practically at the end of pregnancy, fortunately the cystic growth was not rapid nor were changes compatible with a complex lesion observed, however, when considering the dimensions and corroborating it at birth, it was He preferred postnatal surgery [20,21].

Conclusion

Timely detection of an intra-abdominal cystic lesion and ultrasound follow-up improve perinatal prognosis.

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