

Multiple Cysts, Giant of the Umbilical Cord Presentation of a Case

Salazar Esmely*

Lecturer of the Postgraduate of Obstetrics and Gynecology of the University Hospital "Antonio Patricio de Alcalá" - University of the East, Nucleus of Sucre, Cumana, Sucre, Venezuela

***Corresponding Author:** Salazar Esmely, Lecturer of the Postgraduate of Obstetrics and Gynecology of the University Hospital "Antonio Patricio de Alcalá" - University of the East, Nucleus of Sucre, Cumana, Sucre, Venezuela.

Received: December 08, 2019; **Published:** January 07, 2020

Abstract

The frequency of umbilical cord cysts observed in the second trimester is unknown. They are associated with chromosomal and/or structural defects. Most cysts originating from omphalomesenteric duct remnants are located close to the fetal abdominal wall. They can be single or multiple and of variable size. We report the case of a patient who is detected by ultrasound, in the second trimester, a fetus with multiple and giants umbilical cord cysts, not associated with congenital anomalies. Evolution of pregnancy, without complications, until the end of 38 weeks. Surgical resolution of the umbilical wall defect of the newborn, immediately after his birth with satisfactory evolution.

Keywords: *Umbilical Cord; Cord Cysts*

Introduction

Umbilical cord cysts may be observed in 3% of ultrasounds performed in the first trimester [1]. 20% is associated with chromosome defects and/or structural defects. Most cysts that originate from debris from the omphalomesenteric duct are located near the fetal abdominal wall. Developed remnants of the allantois tend to be located in the middle and derivatives in the amniotic epithelium can be found throughout the cord. True cysts are those with an epithelial coating and false cysts or pseudocysts those that do not have epithelial coating and result from Wharton gelatin edema. According to their embryological origin are classified into cysts of inclusion of the celomic epithelium, which develop in small areas along the entire length when a small part of that membrane is incarcerated in the cord, and cysts originated from remains of the allantois or the omphalomesenteric duct and should not be confused with omphaloceles [2,3]. Allantois are covered by a single cell line of few low cubic cells, while omphalomesenteric are covered by a mucin-producing secretory columnar epithelium. They have been described containing a gastric, colonic, pancreatic or intestinal secretory epithelium. However, it is not possible to determine the type of cyst by ultrasound [3,4].

Between 2.1% and 3.4% of ultrasounds in the first trimester of all pregnancies [2,3] may be observed. In the second and third quarters the frequency of observation is unknown, as reports have been limited to case series [4,5]. There is no difference in prenatal ultrasound visualization and some series do not distinguish between pseudocysts and true cysts.

Cysts can be single or multiple. An association between the morphological characteristics of cord cysts and the risk of foetal malformations has been reported in several researches. Those diagnosed in the second and third trimesters may become associated with up to 50% fetal anomalies and aneuploidies. Gastrointestinal structural abnormalities (omphalocele), genitourinary (uropathy obstructive), ceramics, within these trisomies 18 (most frequent), trisomy 21 and trisomy 13, therefore its detection during the second trimester requires the realization of a fetal karyotype [6].

The case below represents the first in the Sucre state corresponding to multiple cysts, large umbilical cord, diagnosed in the second trimester of a gestation, the evolution of which reached the term.

Classic Case

This is a female patient of 26 years, I Gesta, pregnancy of 16 weeks by date of last menstruation (FUR) and fetal biometrics. High obstetric risk from insulin control in control with endocrinologist. Background gynecologist-obstetrics: menarche at 12, normal menstrual patron. Go to private prenatal care. You are given obstetric ultrasound by avoiding, single fetus, feminine, in transverse situation, DBP: 34 mm, CC: 121 mm, LF: 20 mm, AC: 95 mm, fetal growth in percentile 22. Normal ILA, grade I/III anterior placenta. The cord umbilical images, the largest images located at the umbilical root level, close to the fetal abdominal wall, of 16 x 15 mm and 12 x 10 mm, the Doppler is displayed umbilical cord with its three elements. No evidence of aneuploids. Genetic amniocentesis is performed, which reports Normal Karyotype 46 XX. Gestation evolves with increased size and number of cord cysts, without any other concomitant morphological alteration (Figure 1). High-end gestation resolution is planned at week 38 in conjunction with the pediatric surgery team of the University Hospital "Antonio Patricio de Alcalá" of the City of Cumaná. Segmental C-section is practiced obtaining RNAT-AEG, female, weight: 3,170 gr, size: 49.4 cm. APGAR: 8/9 points to the first and fifth minutes. Umbilical cord with multiple cysts throughout its path, the largest at the 120 x 70 mm umbilical root level (Figure 2-5). Placenta unaltered in its maternal and fetal faces, hydropic of bland consistency, diameter of 6 cm, discoid, with 720g of weight and insertion of the central umbilical cord. Immediately the newborn is surgically intervened, omphalocele is ruled out, bladder and intestinal review, repair and plasty of umbilical defect (Figure 6) is practiced. She is sent to neonatal intensive care where she successfully evolves (Figure 7) and is graduated with subsequent neonatology controls.

Discussion

Cysts are the second most common alternation of the umbilical cord (CU), after the knots. When they are a find they have a good prognostic and good perinatal result [5] as in the fetus and Rhee. They can be located along the umbilical cord, but their most frequent location is towards the insertion of the cord in the fetus, as in the case here. Ultrasound is observed as hypoxic area, with a taman or between 4 to 60 mm, although in the case referred the larger cyst had a dimension of 120 x 70 mm.

Cysts of the umbilical cord can be easily overlooked during the routine ultrasound [7]. In the first trimester of pregnancy, when images suggesting CU cysts are observed, the vitellin sac must be identified to differentiate it from the cyst [8]. In addition, the temporal variations associated with the development and involution of the physical's abdominal hernia make the accurate echogram diagnosis of these abnormalities very difficult in the embryonic period; in all cases ultrasound should be followed in the second and third cases quarter.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7

The differential diagnosis is with congenital anomalies type abdominal wall defects such as gastroschisis or omphalocele; vascular anomalies [8,9], for which it is the assessment with Doppler color in order to evaluate the umbilical vessels to distinguish between aneurysm or varicosity of the umbilical vein and hemangiomas [5]; in addition, the allantoic cyst has a postictic related to the vessels [9]. As opposed to the revised literature, the cysts persisted until the evaluation of the RN, no association with other congenital defects was found [10-12].

Conclusion

In the approach of pregnant women who are caught a CU cyst in the first or second trimester echocardiogram, an anatomy detail ultrasound should be performed to rule out congenital malformations and make differential diagnosis with vascular alterations and abdominal wall defects. When other anomalies are not found, the good prognostic should be explained in order to decrease the anxiety of the couple. It is suggested to perform external review, of the umbilical cord and placenta, as well as the immediate evaluation of the newborn by the pediatric surgery team in order to perform correction of the defect of the formed abdominal wall, bladder and intestinal revision, as in the case here' reported.

Bibliography

1. Ross J., *et al.* "Umbilical cord cysts in early pregnancy". *Obstetrics and Gynecology* 89 (1997): 442-445.
2. Ratan SK., *et al.* "Omphalomesenteric duct cyst as a content of omphalocele". *Indian Journal of Pediatrics* 74.5 (2007): 500-502.
3. Ghezzi F., *et al.* "Single and multiple umbilical cord cysts in early gestation: two different entities". *Ultrasound in Obstetrics and Gynecology* 21 (2003): 215-219.
4. Smith G., *et al.* "The sonographic finding of persistent umbilical cord cystic masses is associated with lethal aneuploidy and/or congenital anomalies". *Prenatal Diagnosis* 16 (1996): 1141-1147.
5. Kilicdag H., *et al.* "Large pseudocyst of the umbilical cord associated with patent urachus". *Journal of Obstetrics and Gynaecology Research* 30 (2004): 444-447.
6. Sepulveda W., *et al.* "Pseudocyst of the umbilical cord: prenatal sonographic appearance and clinical significance". *Obstetrics and Gynecology* 93 (1999): 377-381.
7. Chen CP., *et al.* "Prenatal diagnosis of omphalocele associated with umbilical cord cyst". *Acta Obstetrica et Gynecologica Scandinavica* 74 (1995): 832-835.
8. Bromley B and Benacerraf B. "Sonographically detected abnormalities of the umbilical cord". *International Journal of Gynecology and Obstetrics* 48.2 (1995): 179-185.
9. Kiran H., *et al.* "Pseudocyst of the umbilical cord with mucoid degeneration of Wharton's jelly". *European Journal of Obstetrics and Gynecology and Reproductive Biology* 111 (2003): 91-93.
10. Zangen R., *et al.* "Umbilical cord cysts in the second and third trimesters: significance and prenatal approach". *Ultrasound in Obstetrics and Gynecology* 36 (2010): 296-301.
11. Tong SY., *et al.* "Umbilical cord cyst: a prenatal clue to bladder exstrophy". *Prenatal Diagnosis* 27 (2007): 1177-1179.
12. Ramirez P., *et al.* "Significance of prenatal diagnosis of umbilical cord cyst in a fetus with trisomy 18". *American Journal of Obstetrics and Gynecology* 173.3 (1995): 955-957.

Volume 9 Issue 2 February 2020

© All rights reserved by Salazar Esmely.