CASE REPORT

SPONTANEOUS RESOLUTION OF ANTENATALY DIAGNOSED COMPLEX OVARIAN CYST - A FOLLOW UP SONOGRAPHIC STUDY
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HOW TO CITE THIS ARTICLE:

ABSTRACT: A congenital ovarian cyst in fetoleonatal stage is a rare condition. New advanced Ultrasonography technique increased the incidences. Though benign, large cyst and complex cysts may require surgical management. We followed one case of complex fetoleonatal ovarian cyst till complete resolution.

INTRODUCTION: A congenital ovarian cyst is a rare condition which can be diagnosed during antenatal ultrasonography. In recent years fetal ovarian cysts are diagnosed more frequently because of improved prenatal sonographic techniques. Although rare it is the most common cystic masses in abdomen of female fetus and neonates. These are benign, functional cysts which result from enlargement of normal follicles during third trimester or early neonatal period. Since most of them follow a benign course, they have an excellent prognosis especially if the cyst is isolated, unilateral, and unilocular. However, large cysts and complex cysts may require active management. Here we report a case of complex fetoleonatal ovarian cyst with spontaneous resolution.

CASE REPORT: A 25 year old female 1 p-1 g came for routine antenatal ultrasound in third trimester. On ultrasound examination there was a complex cystic mass of 4.5 cm x 5.0 cm size, in the lower abdomen of fetus predominantly on Rt side (Fig no-1).

The cystic lesion shows thick well-defined hyperechoic wall with internal echoes. No calcification or septation seen in the cyst. On color doppler there was no color flow seen. After one month she delivered a healthy baby of 2.8 Kg. We performed ultrasound of neonate on 2nd post natal day and found that the cyst was same in size, shape and echo-texture (fig no-2). Neonate was kept under close observation USG performed after 1 month and found that the size of cyst was reduced to 3.1 cm x 2.3 cm (Fig no-3). There was no any complaint from the neonate so another USG performed after three month, there was complete resolution of the cystic mass (Fig no-4).

DISCUSSION: The first case of an ovarian cyst was reported in 1889 in a stillborn premature. ¹In 1942, Bulfamonte reported the first case of a successfully treated ovarian cyst during the neonatal period.² Fetal ovarian cyst was first described as a prenatal finding by Valenti et al in 1975 and were believed to be rare findings. ³ The etiology of fetal ovarian cysts is still unknown, but hormonal stimulation is generally considered to be responsible for the disease. ⁴It is believed that it results from fetal exposure to maternal gonadotropins and is observed in newborns whose mothers have increasing levels of HCG (diabetes mellitus, Rh isoimmunisation, toxemia). ⁵The majority of the ovarian cysts are benign cysts of germinal/grafian origin such as follicular, theca-lutein cyst, corpus luteum cyst, and simple cyst in which lining epithelium is destroyed. Most of the cysts are unilateral and unilocular. The size may vary from small to giant cystic masses occupying the entire abdomen.
Most of the ovarian cysts are asymptomatic, or the symptoms are nonspecific. A large cyst may cause urinary tract obstruction, thorax compression with pulmonary hypoplasia, and even sudden death. Large size ovarian cyst may cause intestinal obstruction. Cystic mass in ovary may lead to torsion during the neonatal period and resulting infertility are very disturbing. When an ovarian cyst is suspected prenatally serial ultrasound should follow till the delivery and after delivery. Prenatal aspiration of cyst seems to be of no advantage and to be reserved for special cases. Most of these cysts regress in the first 6 months of life. However, large cysts and resulting infertility complex cysts may require active management. In the present era of minimally invasive surgery, ovarian cysts are increasingly being managed laparoscopically. Prenatal aspiration of cyst appear effective and safe, criteria for aspiration should be -4 cm or more is matter of investigation, Cyst with ultrasound pattern of torsion persisting postnatally require surgery; option for their management, when sonographically disappearing and asymptomatic, need to be investigated. Surgical management of ovarian cysts should be reserved to complex masses. Simple cysts can be monitored safely by close US follow-up; surgery is indicated if the cyst fails to regress after several months or becomes symptomatic.

In our case there was complete resolution of the complex feto-neonatal cyst by 4 months after birth so our opinion is that irrespective of the sonographic character of ovarian cyst in fetus and neonates it should be given sufficient time to resolve under close observation.

BIBLIOGRAPHY:


**CASE REPORT**

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Date of Submission: 15/12/2013.
Date of Peer Review: 16/12/2013.
Date of Acceptance: 27/12/2013.
Date of Publishing: 21/01/2014

**Fig. 1:** Antenatal USG - complex cystic mass in fetal abdomen.

**Fig. 2:** Complex cystic mass in 2nd Post natal day neonates shows internal echoes and irregular thick wall.

**Fig. 3:** Reduced size and clear echogenecity of cystic mass after 1 month.

**Fig. 4:** Complete resolution of cystic mass of fetal ovary after 4 month.