

ABSTRACT Ovarian cysts are the most frequently encountered abdominal tumours in female fetuses and newborns Incidence of antenatal diagnosed ovarian cysts is 1 in 2500 births. 26 years Mrs. XX multigravida G3P1L1A1, previous normal vaginal delivery with 31 weeks of gestational age came to OPD for regular antenatal checkup with normal NT scan and anomaly scan. Routine third trimester growth scan was done , sonography examination of fetus showed echogenic cyst between bladder and stomach. Neonatologist opinion was obtained and followup was done. At 38 weeks 4 days , she delivered 3.380 kg girl baby with APGAR 8/10, 9/10 . Paediatric surgeon opinion was obtained and was adviced neonatal USG followed by MRI. USG showed cystic lesion in left adnexal region likely left ovarian cyst. MRI showed pelvicoabdominal mass 79*61*51 mm likely intra peritoneal, T1- focal uni Locular hyper intense and T2- hyper intense cystic lesion in left adnexa/ mesentry/ omentum with central hyperintensities (? Hemorrhagic), few septations (1mm thickness), hypointense fluid (?Hemorrhagic fluid) and few ill defined hypointensities in the dependent part (?Hemosiderin sedimentations/ debris) with peripheral smooth lobulated thin margins - likely left hemorrhagic ovarian cyst. Diagnostic laparoscopy and proceed was planned on postnatal day 6 under GA. Intra op findings left hemorrhagic ovarian cyst 8*6 cm filled with hemorrhagic fluid , 2 torsions and compromised ovary noted. Proceeded with laparoscopic assisted aspiration, detorsion of left ovarian cyst and left salpingoopherectomy . Postop neonate was stable. The infant was subsequently discharged without complications. An appropriate follow-up and treatment should be planned according to the size of the ovarian cyst and the clinical findings.

KEYWORDS : Hemorrhagic cyst, torsion , fetal ovarian cyst

INTRODUCTION

Ovarian cysts are most frequently encountered abdominal tumours in female fetuses and newborns. Incidence of antenatal diagnosed ovarian cysts is 1 in 2500 births[1,2,3] Neonatal ovarian cyst was first reported in 1889 by Mudholkar as an autopsy findings in a still born preterm infant. The first prenatal detection of a fetal ovarian cyst was in 1975 by valenti.

Approximately 30% of genital masses are fetal ovarian cysts. Ovarian cysts are usually unilateral and represent the most common abdominal mass lesion in female fetuses[4].Majority of abdominal masses detected in the neonatal period are benign and related to the renal, genital, gastrointestinal, or hepatobiliary system, with decreasing frequency.

Case Report

26 years Mrs. XX multigravida G3P1L1A1 , previous normal vaginal delivery with 31 weeks of gestational age came to OPD for regular antenatal checkup with normal NT scan and anomaly scan. Routine third trimester growth scan was done, sonography examination of fetus showed echogenic cyst between bladder and stomach. Neonatologist opinion was obtained and followup was done. At 38 weeks 4 days , she delivered 3.380 kg girl baby with APGAR 8/10, 9/10. Paediatric surgeon opinion was obtained and was adviced neonatal USG followed by MRI . USG showed cystic lesion in left adnexal region likely left ovarian cyst. MRI showed pelvicoabdominal mass 79*61*51 mm likely intra peritoneal,T1- focal uni locular hyper intense and T2- hyper intense cystic lesion in left adnexa/ mesentry/ omentum with central hyperintensities (? Hemorrhagic), few septations (1mm thickness), hypointense fluid (?Hemorrhagic fluid) and few ill defined hypointensities in the dependent part (?Hemosiderin sedimentations/debris) with peripheral smooth lobulated thin margins - likely left hemorrhagic ovarian cyst. Diagnostic laparoscopy and proceed was planned on postnatal day 6 under GA. Intra op findings left hemorrhagic ovarian cyst 8*6 cm filled with hemorrhagic fluid , 2 torsions and compromised ovary noted. Proceeded with laparoscopic assisted aspiration , detorsion of left ovarian cyst and left salpingoopherectomy .

Postop neonate was stable. The infant was subsequently discharged without complications.



FIGURE 1) MRI of the mass



Figure 2,3 - Intraop Torsion of the ovary and fluid aspirated hemorrhagic cyst respectively



DISCUSSION

Fetal abdominal mass can be best diagnosed incidentally in a antenatal routine third trimester USG. Ovarian cysts are most common cause of abdominal masses detected in fetuses. Mostly it can be confused with other abdominal masses. In 90% of the cases fetal ovarian cysts resolve spontaneously if size is less than 3 cm[5]. Etiology of fetal ovarian cysts includes advanced maternal age, maternal diabetes mellitus, severe preeclampsia, Rh isoimmunization, with increased placental chorionic gonadotropins, immature of gonadostat mechanisms, congenital adrenal hyperplasia due to 21 hydroxylase deficiency or 11 beta hydroxylase deficiency and fetal hypothyroidism [6]. 90% of the cases were detected during the antenatal checkup's between 32-36 weeks gestation. Complications such as intra cystic hemorrhage, gastrointestinal obstruction, urinary tract compression, torsion and necrosis and in cases of very large cysts, difficult delivery due to abdominal dystocia and respiratory distress due to diaphragm compression may be seen in cases of fetal or neonatal ovarian cysts[7,8]. In about 31% of the cases torsion of ovarian cyst is noted if size is greater than 5 cm[9]. Surgical removal is recommended for complex cysts, ovarian torsion, symptomatic patients and cysts that do not regress in size by sixth month.

CONCLUSION

Ovarian cysts are seen more frequently seen than expected in neonatal period and they can be life threatening because of their complications like torsion and rupture . To date , there is no precise guide for the monitoring and treatment of neonatal ovarian cyst. Surgical treatment should be considered when needed in a way to protect the ovaries and to ensure future fertility.

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