ABSTRACT

Introduction: Mature cystic teratoma (Dermoid cyst) are the most common benign ovarian tumor associated with pregnancy. They are usually found in second trimester incidentally on ultrasound or present as acute abdomen due to torsion. They are usually unilateral but 10% cases can be bilateral. Giant size occupying whole abdomen mimicking term gestation with minimal symptom in second trimester is rare. Case Report: A 21 year primigravida with 13 week gestation presented with mild abdominal discomfort and swelling, found out to be a giant Cystic teratoma on CTscan. Exploratory Laparotomy was done with complete removal of the mass without spillage. On Histopathology it was confirmed as Mature cystic teratoma. Patient was followed up till term and delivered a healthy fetus by Cesarean section due to fetal indication. Conclusion: Early detection and intervention of ovarian mass leads to successful pregnancy outcome.

KEYWORDS:
Mature cystic teratoma, pregnancy

Case Report: A 21 year primigravida with 13 week gestation presented with mild abdominal discomfort and swelling, found out to be a giant Cystic teratoma on CTscan. Exploratory Laparotomy was done with complete removal of the mass without spillage. On Histopathology it was confirmed as Mature cystic teratoma. Patient was followed up till term and delivered a healthy fetus by Cesarean section due to fetal indication. Conclusion: Early detection and intervention of ovarian mass leads to successful pregnancy outcome.

No definite diffusion, restriction foci seen in the solid part of the lesion. Low resistance high velocity flow in the solid part of the lesion. No evidence of retroperitoneal lymph nodes seen. No evidence of any distant metastasis. MRI was suggestive of malignant right ovarian mass(Fig2).

Her serum CA125, CEA, CA19.9, Serum alphafetoprotein, Beta HCG were within normal limits. Her LFT and RFT was within normal limits.

Due to the giant size of ovarian mass decision for exploratory laparotomy was taken. Preoperative injectable progesterone was given.

She underwent exploratory laparotomy under spinal anaesthesia. Vertical midline incision was given. On opening the abdomen an encapsulated left ovarian mass of size 20x20x18 cm huge solid cystic mass was seen covering the whole abdomen. (Fig3)Moderate ascites of approx., 200ml clear fluid was found. No deposit in the peritoneal cavity seen. Right ovary and tubes were normal. Uterus was 12-14 week size. Excision of left adnexal mass was done. On cut section of the mass multiple bossilated appearance found, cheesy structures, fetal skin like appearance, hair, gelatinous fluid seen.(Fig4) On frozen section, teratoma with mixed component was found. Omentectomy with bilateral pelvic peritoneal biopsy with ascitic fluid analysis was done

Post op recovery was good.

On Histopathological examination, benign cystic teratoma was found. Omentum, right fallopian tube, right and left pelvic peritoneum was within normal limits. Ascitic fluid analysis showed no malignant cells. Patient discharged on 15th post op day.

She followed up with us with regular antenatal checkup and delivered a healthy child by Cesarean section. She was discharged on 7th post op day uneventfully.

Discussion: Occurrence of adnexal mass in pregnancy is 4%. (3) Majority of adnexal masses are ovarian origin. Dermoid cyst and mucinous cyst are the most common ovarian mass in pregnancy. They are found constituting 60% of total adnexal mass during pregnancy. Incidence of complex or simple persistent cyst more than 6 cm is still rare, only 0.07%. (4) The incidence of Dermoid cyst with pregnancy is approximately 37%. It occurs in young women (20–30 years of age) in approximately 80% of the cases. Teratomas are derived from germ
cells and may contain structures from all three embryonic germ layers. Most of them are benign and usually disappear by the 16 week of gestation. Most of them are benign in nature but can be malignant in 5% cases. Most of them are asymptomatic and found incidentally during an ultrasound examination. Though they can present as acute abdomen due to torsion in 15% cases. Dermoid cyst rarely grows more than 10 cm. Asymptomatic giant dermoid cyst in early pregnancy is a rare entity as in our case, she mimicked a full term gestation abdomen.

Detection of ovarian mass is usually done by ultrasound if the size is small. When the mass is very huge, thought to be malignant and the origin is doubtful, MRI gives a clear picture and helps in further management. Though in our case MRI showed features of malignant ovarian mass. During pregnancy, tumor markers are not reliable to assess the risk of malignancy of ovarian masses. During pregnancy, however, serum AFP, beta hCG and inhibin levels are all raised due to placental synthesis and thus the use of these markers in evaluating suspicious ovarian cysts is limited. Due to increased pelvic vascularity in pregnancy, the degree of overlap of these indices in both benign and malignant lesions makes Doppler imaging unreliable in this setting.

Conservative management for small size asymptomatic dermoid cyst with regular follow-up though there are many controversies regarding the management. Surgery is done for symptomatic small sized ovarian mass and giant size ovarian mass where suspicion of malignancy is there as in our case. Laparoscopic cystectomy is done in small sized mass preferably in second trimester. Laparotomy is the procedure of choice for such a giant dermoid cyst at second trimester. Complete removal of the mass, reduction of the risk of recurrence, prevention of the risk of tumor dissemination and preservation of healthy ovarian tissue should be considered during the surgery of benign ovarian tumor.

The risk of miscarriage following surgery for ovarian tumor during pregnancy is estimated 2.8%.

Conclusion: Early booking of pregnant patient with through clinical examination with early ultrasound is very important in detecting ovarian mass in pregnancy. Giant sized ovarian mass needs complete removal with minimal spillage by laparotomy. Early diagnosis, timely intervention is the key to the successful fetomaternal outcome.
Reference.


