



Pregnancy with a huge ovarian mucinous cystadenoma

Bagchi Sipra¹, Gupta K. Ashish², Alwadhi Kimmi³, Monga Ruchi⁴

1-MD, Assistant professor ; 3-MS,Senior Resident; 4-MBBS,Junior resident ; Dept. of Obstetrics and Gynaecology , SRMS Institute of Medical Sciences, Bareilly, Uttar Pradesh, India. 2-MD, Associate Professor; Dept. of Radiodiagnosis, SRMS Institute of Medical Sciences, Bareilly, Uttar Pradesh, India.

Corresponding Address: Dr. Sipra Bagchi, E-3, Doctors' residence, SRMS-IMS, Nainital road, Bhojipura, Bareilly, Uttar Pradesh, India, 243202. Email: drsiprabagchi@gmail.com

Abstract:

Introduction: The ovarian tumours during pregnancy are uncommon. Torsion is the most common complication. Management can be conservative or surgical depending on the size, gestational age, available resources, and possibly patient preference following careful evaluation. Advances in imaging techniques have made decision making easier. **Case report :** We report a case of a 29 years old second gravida with 20 wks of pregnancy who presented to OPD with heaviness over lower abdomen. On abdominal examination a large abdominopelvic cystic mass was felt extending upto xiphisternum more on right side and 20wks uterus was felt deviated to left side. On radiological investigations she was diagnosed with a huge abdominopelvic cystic lesion of 22cm ×12cm× 22 cm with a live fetus of 20wks 6days. Patient was taken for laparotomy and proceed. Laprotomy revealed a huge right ovarian cyst filled with gelatinous material. Cyst excision along with ipsilateral salpingectomy was done . Histopathological report showed benign mucinous cystadenoma. Her pregnancy was followed up regularly and she delivered vaginally a healthy male baby at term. **Conclusion:** The management of ovarian tumours during pregnancy can be challenging. Although the safety of antepartum surgical intervention has been accepted, abdominal surgery will always carry some risk to a pregnant women and unborn fetus. Surgery becomes necessary in the presence of rupture, torsion or risk of malignancy..

Key words: ovarian mucinous cystadenoma, pregnancy

Introduction:

The presence of ovarian tumours in pregnancy is very uncommon with a frequency of about 1 in 1,000 pregnancies and of these 3% are malignant [1] .In most cases the tumours are benign but they still need to be investigated to rule out ovarian carcinoma. Most common ovarian masses encountered during pregnancy are functional cysts of ovary and luteomas which are unique to pregnancy [2]. The other ovarian masses in order are benign cystic teratomas, serous cystadenoma, paraovarian cyst, mucinous cystadenoma and endometrioma [2]. Ovarian mucinous cystadenoma is a benign epithelial ovarian tumour arising from surface epithelium of ovary. Of all ovarian tumour, mucinous tumour comprise 15%. It tends to be huge in size. About 80% are benign, 10% are borderline and 10% are malignant. They are common between third and fifth decade [3]. The most frequent complication of benign ovarian cysts are torsion, haemorrhage and

rupture. It contains mucinous fluid which after rupture deposits on the peritoneum, leading to *pseudo myxoma peritonei* [4].

Case report:

A 29 yr old G₂P₁L₁ with previous fullterm vaginal delivery presented at 20 wks of gestation with complaints of heaviness over lower abdomen. Patient denied any history of abdominal pain, nausea, vomiting, bladder and bowel complaints. Patient had previous regular menstrual cycles with no dysmenorrhoea.

On admission , her vitals were stable with pulse rate of 82/min, BP of 130/90 mmHg . She was afebrile, cardiovascular and respiratory systems were normal . Abdominal examination revealed overdistension of abdomen and an abdominopelvic cystic mass felt extending upto xiphisternum on right side.Uterus with fundal height of 20wks was deviated to left side.

On investigation, her Hb was 12 g%. Rest of her blood investigations were within normal limits. Her CA-125 was 19.7 U/ml. Sonography revealed a live fetus of 20wks 6days with a large well defined smooth margined thin walled abdominopelvic cystic lesion of 22cmX12.7cmX22cm more towards right side. Along the caudal wall of the lesion , multiple thin septations were noted. MRI was done which showed a well defined cystic mass arising from right side of pelvis with diffuse central hyperintensity on T2 and multiple thin hypointense septa within it . The mass extended along the lateral margin of the uterus causing its deviation to the left posterolateral aspect, extending upto epigastrium. A diagnosis of right ovarian cyst of size 22cm x 12.7cm x 22 cm was made.

Patient was taken up for exploratory laparotomy and proceed . Laparotomy revealed uterus of 20 wk size with huge cystic mass of 25x 20cm occupying whole of epigastrium, right hypochondriac and pelvic region extending upto xiphisternum. It was arising from right ovary and right tube stretched over it. Cyst was mobile, containing mucinous fluid and gelatinous material. The huge cyst was removed along with ipsilateral fallopian tube and sent for histopathology.

Patient was given injectable progesterone and tocolytic perioperatively. Histopathology revealed Benign Mucinous Cystadenoma. The postoperative period was uneventful. Patient was discharged healthy on post operative day 8. She was followed up regularly. Her pregnancy continued unremarkably and she delivered a live healthy male baby at 38 wks of gestation by vaginal route.

Discussion:

The mucinous cystadenomas are one of the benign epithelial ovarian tumours which tend to be unilateral and multilocular with smooth surface and contain mucinous fluid. They comprise 12%-15% of all ovarian tumors. Around 75% of all mucinous tumors are benign, while 10% are borderline and 15% are invasive carcinomas [2,3]. Giant cysts are found in less than 1% of the cases of ovarian cysts with pregnancy [5]. Torsion is the most common and serious complication of benign ovarian cysts during pregnancy. The other complications which might occur are rupture of cyst, infection, malignancy, impaction of cyst in pelvis, obstructed labour and malpresentations of fetus [6]. With the advent of imaging techniques such as MRI, trans vaginal colour Doppler, high resolution ultrasound, management of ovarian cysts has become much easier. Removal of an ovarian mass during

pregnancy is indicated for three main reasons: 1. elimination of a potential cause of dystocia, 2. risk of torsion, rupture, or hemorrhage and 3. danger of malignancy [7]. The size of the tumour as well its ultrasound characteristics, colour doppler flow and symptoms is important in determining the management of pregnant patients with adnexal masses. Although the safety of antepartum surgical intervention has been accepted, abdominal surgery nevertheless carries some risk to a pregnant women and unborn fetus and so the choice of management necessitates a weighing of risks based on characterization of adnexal mass and gestational age. If ovarian cyst is diagnosed in first trimester, it is better to wait till 16 weeks when the implantation of pregnancy is more secure and also the cyst may disappear spontaneously. Persisting tumour are treated by cystectomy or ovariectomy .Ovarian tumour or cyst can be easily removed till 28 week of gestation, thereafter not only it becomes hard to access but also operation may precipitate preterm labour. Ovarian cyst if ruptures or undergo torsion or if it shows evidence of malignancy, immediate surgery is needed, irrespective of period of gestation [2,8].

Cyst less than 6 cm in diameter and appearing benign on ultrasound are generally treated conservatively as they may undergo spontaneous resolution [8-10]. Cyst more than 10 cm in size are usually resected due to increased risk of malignancy, rupture or torsion. Management of cyst between 5 to 10 cm is controversial. If the cyst contains septae, nodules, papillary excrescences or solid component then resection is recommended [10]. Laparoscopy is safe and effective treatment in gravid patients with symptomatic ovarian cystic masses. Benefits of laparoscopic surgery with respect to lesser pain, reduced length of hospital stay, earlier ambulation, decreased blood loss, and the lower rate of infection may outweigh those of open traditional laparotomy [9].

In our case , the cyst was huge, 25x 20 cm in size and surgery was essential to prevent complications and later on successful vaginal delivery was conducted without any intrapartum or postpartum complications.

Conclusion:

Pregnancy with huge ovarian mass is a rare entity. Surgery whenever indicated should be conducted in the second trimester to prevent complications of torsion and rupture which can lead to significant morbidity and mortality. In the presence of complications, early surgical intervention

is usually the key to successful treatment and good outcome. Laparoscopy or laprotomy are the surgical options available.

Source of funding: Nil

Conflicts of interest: Nil

Acknowledgement:

The authors are grateful to authors/editors/publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

References:

1. Hermans RHM, Fischer DC, van der Putten HWHM, van de Putte G, Einzmann T, Vos MC, et al. Adnexal masses in pregnancy. *Onkologie*. 2003;26:167-72.
2. Dahiya P. Ovarian mass in pregnancy: a case report. *Int J Reprod Contracept Obstet Gynecol*. 2015; 4(3): 915-917. doi:10.18203/2320-1770.ijrcog20150128
3. Ioffe OB, Simsir A, Silverberg SG. In: *Practical Gynaecologic Oncology*. Berek JS, Hacker NF, editor. Lippincott Williams & Wilkins Company; 2000. Pathology; pp. 213-214

4. Remah M Kamel, A massive ovarian mucinous cystadenoma: a case report; *Reprod Biol Endocrinol*. 2010;8:24
5. Rosales Aujang E. Giant ovarian cyst and pregnancy. Case report and literature review. *Ginecol Obstet Mex*. 2011;79:235-8.
6. Lee CH, Raman S, Sivanesaratnam V. Torsion of ovarian tumors: a clinicopathological study. *Int J Gynaecol Obstet*. 1989;28:21-5.
7. C. Grigoriadis et.al Ovarian cancer diagnosed during pregnancy: clinicopathological characteristics and management; *G Chir*. 2014 Mar-Apr; 35(3-4): 69-72
8. Yen CF, Lin SL, Murk W, Wang CJ, Lee CL, Soong YK, Arici A. Risk analysis of torsion and malignancy for adnexal masses during pregnancy. *Fertil Steril*; 2009;91(5);1895-1902.
9. Ibrahim Adamu Yakasai, Diagnosis and Management of Adnexal Masses in Pregnancy; *J Surg Tech Case Rep*. 2012 Jul-Dec; 4(2): 79-85. doi: 10.4103/2006-8808.110249
10. Kolluru V, Gurumurthy R, Vellanki V, Gururaj D. Torsion of ovarian cyst during pregnancy: a case report. *Cases Journal* 2009;2:9405. <http://dx.doi.org/10.1186/1757-1626-2-9405> PMID:20090873 PMCID:2809077.

Figure 1: [a] Intraoperatively the huge (25x 20cm) ovarian cyst [thin arrow] seen pushing the uterus [thick arrow] towards left [b] Cyst excision in progress

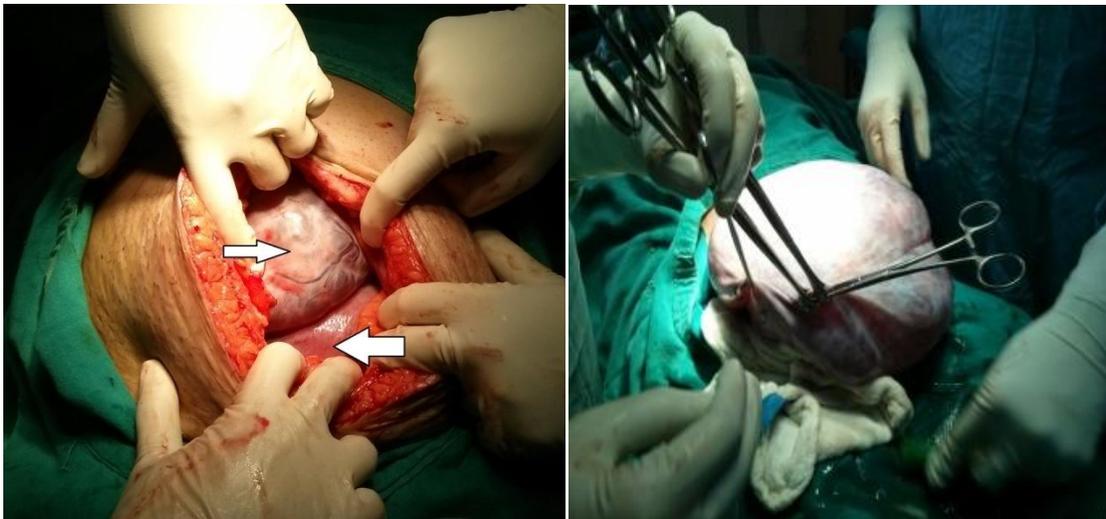


Figure 2: [a] The huge cyst delivered out of abdomen [b] Postoperative specimen of cyst

