International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2013): 6.14 | Impact Factor (2013): 4.438

Twisted Ovarian Mass in Pregnancy

Dr. Vaibhavi Vaghela

Department of Obs & Gynaecology, Civil hospital, B.J. Medical College, Ahmedabad, Gujarat, India

Abstract: ***A 20 yr. old patient, referred from Gujarat Cancer Research Institute as a case of 2MA with complex ovarian mass with CA125: 520 U/ml with Complaints of Right lower abdominal pain and swelling of abdomen for the last 5 days. USG PELVIS: SLIUF, CRL: 13mm = 7wks 3d, Complex right adnexal mass of 13*10 cm size with foci of calcification suggestive of ruptured large dermoid cyst. Patient was taken for Exploratory Laparotomy under spinal anaesthesia. Per op:Twisted right adnexal mass, necrotic and oedematous in nature. Biopsy report: Mature benign cystic teratoma. Post op: Patient was stable, given injectable antibiotics and progesterone support and discharged on 8th postop day after Stich removal with RANC and called for follow up after 15 days. Follow up:Patient was healthy follow up USG done suggested appropriate growth. CONCLUSION: Twisted ovarian mass is an emergency. It has to be operated as soon as possible. Emergency laparotomy followed by Tumour mass removal was done. Patient was explained about the risk of abortion and informed consent taken. Progesterone support was given to prevent risk of abortion. Dermoid cyst is a benign condition. In emergency it mostly presents as rupture or twisted mass.***

Keywords: Abruptio Placenta, Dermoid Cyst

1. Introduction

Most common ovarian mass in pregnancy is Dermoid cyst. Most common complication it causes is torsion of the ovary. Torsion of ovary is the total or partial rotation of the adnexa around its vascular axis or pedicle. Predisposing factors are: Moderate size, free mobility and long pedicle. Most commonly seen are dermoid and serous cystadenomas. Complete torsion causes venous and lymphatic blockade leading to stasis and venous congestion, haemorrhage and necrosis. The cyst becomes tense and may rupture. Patient usually presents with acute severe pain abdomen and pelvic examination may reveal a tender cystic mass separate from the uterus. The risk of ovarian torsion rises by 5 fold during pregnancy. Incidence is 5 per 10,000 pregnancies. Torsion of ovarian tumours occurs predominantly in the reproductive age group.

2. Case Report

Patient $G_2P_1A_0L_1$, 20 yrs old female, referred from Gujarat Cancer Research Institute as a case of 2MA with complex ovarian mass with CA125: 520, residing at Baguniya Ratalam, MP. She presented with complaints of:

- Right lower abdominal pain for the last 5 days which increased in intensity since last 5 hrs. .
- Swelling over lower abdomen for 5 days.

She gave no history of vaginal bleeding or discharge. There was no history of diarrhoea, constipation, fever, Urinary complaints or any recent illness.

Menstrual history:
Her LMP: 10 / 06 / 2014 And EDD: 17 / 03 / 2015.Her past menstrual cycles were regular.

Obstetric history
$G_2P_1A_0L_1$ .She had previous preterm vaginal delivary /Fch 2 yrs live and healthy. She conceived spontaneously. She had regular antenatal checkups. Her first & second trimesters were uneventful. No significant past medical and surgical history noted.

On examination , the patient was conscious, oriented coherent with pulse 82/min, blood pressure 120/80 mm of hg, temperature normal, no pallor, cardiovascular and respiratory systems normal. Abdominal examination revealed fundal height corresponding to 24 weeks size tender smooth firm mass with restricted mobility arising from pelvis.

Per Speculum examination showed Cervix deviated to left side. No active bleeding.

Per Magnum examination showed 24 weeks size firm tender mass arising from pelvis more on right side felt. Uterus A/V 6-8 weeks size deviated to left side. Cervix os closed.No active bleeding.

Her outside investigations:CA125:520.9. Usg showed Single Live Intrauterine Fetus of 7 wks. maturity with large complex cystic mass in pelvis 13.8*12.8*8.3 cm size, vascular on Colour Doppler (? Ovarian mass with torsion.) Mild free fluid seen. All her blood and urine investigations were within normal limits. USG on the day of admission showed SLIUF, CRL: 13mm = 7wk FCA present. Complex right adnexal mass of 13*10 cm size with foci of calcification present suggestive of ruptured large dermoid cyst. Mild free fluid with echoes in peritoneal cavity.

With the provisional diagnosis of twisted ovarian cyst,after proper consent and pre op preparation patient was taken for Emergency exploratory laparotomy under spinal anaesthesia. Per operatively Complex right ovarian mass of 13* 10 cm with torsion with involvement of fallopian tube was seen. Clamps applied without untwisting the mass and mass removed and sent for histopathological examination. Mass was oedematous and haemorrhagic in nature. Uterus was gravid. Left ovary and fallopian tube were normal. No haemoperitoneum present

Figure 1: Twisted ovarian mass with 2 twists

Figure 2: Ovarian mass removed

Post operatively Patient was vitally stable. Patient was given: Inj. Progesterone depot im stat dose. T. Micronised progesterone 200mg BD for 7 days. Inj. Antibiotics for 5 days and oral antibiotics for another 3 days. T. Folic acid continued.

Her Histopathological report showed Right ovarian mass 16 *13* 7 cm partly solid with multiple cystic areas with presence of hairs. On cutting cheesy and haemorrhagic material came out with calcification 6*4 cm size suggestive of **Mature benign cystic teratoma.** Patient was discharged on 8th post op day after USG and with Routine Antenatal Care: USG showed SLIUF with CRL: 22.4mm = 8wk 6d,FCA: present**.** Approximately 1.5 * 1cm sized hypoechoic lesion suggestive of corpus luteum. Progesterone support was continued and patient was advised follow up after 15 days. Patient came for follow up after 15 days and was vitally stable with normal fetal growth parameters on USG.

3. Discussion

Predisposing factors for torsion are:
Trauma, Violent physical movements, Contraction of gravid uterus, intestinal peristalsis.

D/D of benign ovarian tumours are:
Full bladder, Pregnancy, Pregnancy with fibroid, chocolate cyst, Ascitis, Encysted peritonitis, appendicular lump, Lymphomas and many more.

The *commonest*types of ovarian tumours encountered in pregnancy are cystic teratoma, Para ovarian cyst, serous Cyst adenoma, corpus luteal cysts, luteomas etc. Serous cyst adenomas are thin walled, translucent cysts usually unilocular, may have few daughter cysts, varying between 20-30 cms in size. They are often unilateral can be bilateral. 10-15% of them are borderline malignant while 20- 40% are malignant. *Complications* of the cysts associated with pregnancy are torsion of the cyst, rupture, infection, malignancy, impactionof cyst in pelvis causing retention of urine, obstructed labour and malpresentations of the fetus.

Pulsatility index in Doppler is very useful to differentiate benign nature from malignant nature of tumours.

4. Conclusion

Some studies have suggested surgical intervention for concerns of malignancy, tumour torsion, Tumour rupture, or obstruction of labour. Most ovarian masses can either remain uneventful or resolve throughout pregnancy. Ovarian torsion occurs most frequently in the first trimester, occasionally in the second, and rarely in the third trimester. If the ovarian cyst is diagnosed in the first trimester, it is better to wait till 16 wks. when the implantation of pregnancy is more secure and also the cyst may disappear spontaneously. Persisting tumours are treated by cystectomy or ovariotomy as indicated. Ovarian tumour or cyst can be easily removed till 28 wks. of gestation thereafter it is not readily accessible and may precipitate preterm labour. Ovarian cyst which ruptures, or undergoes torsion or if it shows evidence of malignancy, requires immediate surgery, irrespective of the period of gestation .A simple cystectomy can be performed in the absence of overt malignancy. Untwisting of the pedicle is avoided to prevent emboli and toxic substances related to hypoxia, from entering peripheral circulation.

References

[1] Ventolini G, Hunter L, Drollinger D, Hurd WW: Ovarian torsion during pregnancy. [http://www.residentandstaff.com/issues/arti cles/2005-09_04.asp].
[2] Lee CH, Raman S, Sivanesaratnam V: Torsion of ovarian tumors: a clinicopathological study. *Int J Gynaecol Obstet* 1989, 28:21-25.
[3] Yen CF, Lin SL, Murk W, Wang CJ, Lee CL, Soong YK, Arici A: Risk analysis of torsion and malignancy for adnexal mases during pregnancy. *Fertil Steril* 2009, 91(5):1895-902.
[4] Whitecar MP, Turner S, Higby MK: Adnexal masses in pregnancy: A review of 130 cases undergoing surgical management. *Am J Obstet Gynecol* 1999, 181(1):19-24.
[5] Schmeler KM, Mayo-smith WW, Peipert JF, Weitzen S, Manuel MD, Gordinier ME: Adnexal masses in pregnancy: surgery compared with observation. *Obstet Gynecol* 2005, 105:1098-103.
[6] Duic Z, Kukura V, Ciglar S, *et al.*: Adnexal masses in pregnancy: a review of eight cases undergoing surgical management. *Eur J Gynaecol Oncol* 2002, 23:133-134.
[7] Hibbard LT: Adnexal torsion. *Am J Obstet Gynecol* 1985, 152:456-461.

Author Profile

Dr. Vaibhavi Vaghela is 2nd year Resident in OBGY department, Civil hospital, B.J,Medical college, Ahmedabad, Gujarat, India