

Case Report

Pregnancy with Multiple Fibroids and Big Ovarian Tumor: A Case Report

Akter MS¹, Arzoo S², Afroz S³, Rahman SMT⁴, Begum SA⁵, Airi K⁶, Islam MM⁷

Abstract:

Pregnancy with both leiomyoma and ovarian cyst is a rare clinical entity that often causes obstetric hazards. Fibroids usually develop prior to pregnancy and pregnancy related complications depends upon size and location of leiomyoma. Whereas ovarian cyst can occur in any trimester of pregnancy and complications depends upon the size of ovarian tumor. Here, we reported a 35 years old case of a primigravida after infertility for 15 years with both multiple fibroids and big ovarian tumor. She was under regular follow-up and on her 37 weeks of pregnancy a live male baby was delivered by elective LUCS followed by hysterectomy & left sided salphingo-oophorectomy done for the completely distorted uterus by multiple fibroid and a huge left sided ovarian tumor found during surgery. Her post-operative period was uneventful and histopathology report shows serous cystadenoma and leiomyoma of uterus. Experienced obstetrician should deal such complicated patients with pregnancy to avoid any untoward event during management.

Keywords: Pregnancy, Leiomyoma (Fibroid), Ovarian tumour

Received: October 18, 2016; **Accepted:** November 13, 2016

Introduction:

Leiomyoma and ovarian tumour concomitant are a rare clinical entity, a diagnostic dilemma and a great surgical challenge. Both the conditions are usually asymptomatic but may be occasionally complicated. Fibroids are common, occurring in as many as 10% of pregnancies, with a higher incidence in African-American women¹. Since their incidence increases with increasing age, they are becoming more common in pregnancy as women delay childbearing².

If fibroids are present during pregnancy it can sometimes lead to problems with the development of the baby or difficulties during labour. One longitudinal study found a complication rate of 4 in 72 affected pregnancies³. There is a generally held belief that fibroids grow during pregnancy but longitudinal studies have shown that this happens rarely⁴. Women with fibroids may experience tummy (abdominal) pain during pregnancy and there's a risk of premature labour. If large fibroids block the vagina, a caesarean section may be necessary.

In rare cases, fibroids can cause miscarriage (the loss of pregnancy during the first 23 weeks). Submucosal fibroids have the strongest association with poor pregnancy outcomes; evidence that intramural and subserosal fibroids affect fecundity is inconclusive⁵. Large submucosal and retro-placental

fibroids have the greatest risk of complications⁶. Myomectomy during pregnancy is contraindicated, as it results in profuse bleeding. Diffuse uterine fibroids can be successfully treated conservatively to achieve a successful pregnancy outcome⁷.

Adnexal masses during pregnancy are not uncommon. Ovarian cysts or masses during pregnancy should be accurately evaluated to identify the patients who need surgical interventions from those where a 'wait-and-see' strategy can be followed. The incidence of ovarian and adnexal masses in pregnancy appears to be increasing in line with the expanding use of antenatal ultrasound⁸. The incidence of adnexal masses during pregnancy is estimated to be 0.2-2% depending on the stage of pregnancy. A study by Hoover et al. shows that among the ovarian tumour 1-6% are malignant and the vast majority of these masses are benign. Common benign ovarian tumour are functional ovarian cyst, benign cystic teratomas and serous or mucinous cystadenomas fibromas.

All ovarian cancers are rare and usually low-stage/low-grade⁹. Most common malignant tumours are germ cell tumors, borderline ovarian tumors, epithelial tumors, sex-cord stromal tumors. Ultrasound and MRI are safe diagnostic tools to distinguish between benign and malignant lesions. Treatment options (surgical procedures) should be discussed with each patient individually. Both open

¹ Dr. Musammat Shamima Akter, Associate Professor, Department of Gynaecology & Obstetrics, EMCH, Comilla, Bangladesh.

² Dr. Shabera Arzoo, Assistant Professor, Department of Gynaecology & Obstetrics, EMCH, Comilla, Bangladesh.

³ Dr. Saima Afroz, Associate Professor, Department of Gynaecology & Obstetrics, EMCH, Comilla, Bangladesh.

⁴ Dr. S. M. Tauhidur Rahman, Assistant Professor, Department of Anaesthesiology, EMCH, Comilla, Bangladesh.

⁵ Dr. Syeda Anwara Begum, Registrar, Department of Gynaecology & Obstetrics, EMCH, Comilla, Bangladesh.

⁶ Dr. Krishna Airi, Intern Doctor, EMCH, Comilla, Bangladesh.

⁷ Dr. Md. Moinul Islam, Intern Doctor, EMCH, Comilla, Bangladesh.

Address of Correspondence: Dr. Musammat Shamima Akter, Associate Professor, Department of Gynaecology & Obstetrics, Eastern Medical College & Hospital, Comilla, Bangladesh. Mobile: +8801711909060, Email: dr.shamimaemc@yahoo.com

surgery and laparoscopy can be performed considering the tumour diameter, gestational age and surgical expertise.

Ovarian malignancy is very rare at approximately 7 cases per 10,000 pregnancies in one series¹⁰. In confirmed malignancy, investigations to stage the tumour, such as MRI scanning of the pelvis, may be used but CT and Positron Emission Tomography (PET) should be avoided¹¹.

Management of ovarian mass depend upon its nature and gestational age of women. If it is uncomplicated, mass may be removed in between 14th and 18th weeks. If complicated, tumour should be removed irrespective of period of gestation. Here we discussed an interesting case of fibroid and ovarian mass concomitant with pregnancy.

Case report:

Mrs. Lipi Rani Sinha, 35 years old, primi with history of infertility for 15 years came to Gynaecology & Obstetrics department of Eastern Medical College & Hospital (EMCH) with 8 months of amenorrhea. Her LMP was on 10th August 2015 and she made her first antenatal visit at 3 months of pregnancy where Ultrasonography (USG) report showed, 12 weeks of single viable pregnancy with transverse lie. On her 3rd antenatal visit, she was diagnosed as a 26th weeks of single viable pregnancy with fibroid uterus and left ovarian cyst which was missed during 1st scanning. After that she was under regular follow up and monthly USG was advised. She was also explained about all types of obstetrics complications. When she came to Gynaecology & Obstetrics department of EMCH on her 8 months of pregnancy, her blood pressure (BP)

was 120/70 mm of Hg, pulse rate 88 beats/min. On per abdominal examination, abdomen was undue enlarged which was larger than her gestational age. Fetal movement was also present and her investigation reports showed hemoglobin (Hb%) 10.3 gm/dl, RBS 5.33 mmol/litre, CA-125 15.50 U/ml and USG revealed 35 weeks of single viable pregnancy with multiple fibroids, largest one was 8.2×5.2 cm with left ovarian cystic mass with enclosing daughter cyst measuring 25×12 cm. Then, she was under closed supervision.

On 28th April 2016 that is on her 37 weeks of pregnancy she was scheduled for elective LUCS. Before LUCS, proper counseling was done regarding the outcomes of operation; also counseled that during operation, we may have to done hysterectomy. Patient gave written consent about hysterectomy if situation demand. After opening of abdomen, intra-operative findings were suggestive of multiple fibroids with complete distortion of uterus & a huge left sided ovarian tumour was also present.

A live male baby was delivered by caesarian section with good Apgar score. Uterus was completely distorted by multiple fibroid and a huge left sided ovarian tumor was found which seems to be benign on appearance. Decision was made to do caesarean hysterectomy along with left sided salphingo-oophorectomy. As right sided ovary was apparently looking healthy, it was preserved. Her post-operative period was uneventful. Tissue from the tumour was sent for histopathology which was suggestive of serous cystadenoma and leiomyoma of uterus.



Figure-1: Big Ovarian Tumour with Fibroid Uterus

Discussion:

Fibroids are the most common benign solid tumors of uterus. Regarding ovarian cyst, its frequency ranges from 1:81 to 1:8000 pregnancies and those which are malignant represent about 1 in 15000 to 32000 pregnancies¹². Serous cystadenoma are second most common benign primary ovarian tumour in women <50 years of age, benign cystic teratoma is most common¹³. However both fibroid uterus and ovarian tumor concomitant with pregnancy is an uncommon clinical presentation. But presence of both conditions is potentially a serious problem, though in some cases they may not affect the outcome of pregnancy.

Majority of fibroids during pregnancy may results in abortion, premature labour, intrauterine growth retardation (IUGR), premature rupture of membrane (PROM), abruptio placenta, uterine dysfunction and obstructed labour^{14,15}. There is increased incidence of spontaneous pregnancy loss particularly with multiple fibroids¹⁶. Ovarian tumor may cause malpresentation, non-engagement of head, mechanical distress and obstructed labour during pregnancy. Clinical features due to fibroids include acute onset of focal pain over tumor, malaise or even rise of temperature, dry tongue, constipation and retention of urine, mechanical distress due to ovarian tumor.

Clinically, it is difficult to diagnose a fibroid during pregnancy without fore knowledge of its existence. Marked softening and alternation in shape makes it difficult to differentiate from pregnant uterus. In early months, fibroid is diagnosed but pregnancy is missed whereas in later months pregnancy is diagnosed but fibroid is missed.

For ovarian tumor, abdominal examination reveals the cystic swelling felt separated from gravid uterus. But in later months confusion may arise. Different diagnostic modalities have been used to diagnose the condition. USG is useful to have the details of pregnancy with fibroid showing echogenic mass and ovarian cyst showing cystic mass. Color Doppler is also helpful but MRI is more accurate for diagnosis of fibroid and to know the dimension, location and its relation to placental impaction. A combination of clinical impression, ultrasound features, age, menopausal status and level of biomarkers like CA-125 are used to discriminate between benign from malignant ovarian lesions¹⁷.

The basic principle in the management of pregnancy complicated by fibroid is not to do anything to the fibroid whenever possible. Myomectomy should not normally be carried out at the time of caesarean section except in emergency, as there is a high morbidity due to haemorrhage, although there is emerging evidence that it can be a safe procedure for

large (>5cm) myomas in carefully selected cases if performed by an experienced surgeon¹⁸.

In some cases, fibroid may revert back to smaller size during puerperium. For ovarian tumor, it should be removed as soon as the diagnosis is made. If uncomplicated, the best time for elective operation is between 16th to 23rd weeks of gestation¹⁹. Evacuation by needle aspiration is not recommended in pregnancy²⁰. But if complicated, the tumor should be removed irrespective of period of gestation.

Conclusion:

The most highlighting features of the case presented here of pregnancy with uterine fibroid and ovarian tumor is that the normal full term development of fetus, absence of both fibroid and ovarian tumor related complications during whole pregnancy and excellent recovery of mother following obstetric hysterectomy and left sided salphingo-oophorectomy. Any obstetrician dealing with such patients must be experienced to deal with any untoward event during management.

References:

1. Kwon DH, Song JE, Yoon KR, Lee KY. The safety of cesarean myomectomy in women with large myomas. *Obstet Gynecol Sci.* 2014; 57 (5): 367-72.
2. Zhao XY, Huang HF, Lian LJ, Lang JH. Ovarian cancer in pregnancy: a clinicopathologic analysis of 22 cases and review of the literature. *Int J Gynecol Cancer.* 2006; 16 (1): 8-15.
3. Klatsky PC, Tran ND, Caughey AB, Fujimoto VY. Fibroids and reproductive outcomes: a systematic literature review from conception to delivery. *Am J Obstet Gynecol.* 2008; 198 (4): 357-66.
4. Laughlin SK, Baird DD, Savitz DA, Herring AH, Hartmann KE. Prevalence of uterine leiomyomas in the first trimester of pregnancy: an ultrasound-screening study. *Obstet Gynecol.* 2009; 113 (3): 630-5.
5. Neiger R, Sonek JD, Croom CS, Ventolini G. Pregnancy-related changes in the size of uterine leiomyomas. *J Reprod Med.* 2006; 51 (9): 671-4.
6. Giuntoli RL, Vang RS, Bristow RE. Evaluation and management of adnexal masses during pregnancy. *Clin Obstet Gynecol.* 2006; 49 (3): 492-505.
7. Leiserowitz GS, Xing G, Cress R, Brahmabhatt B, Dalrymple JL, Smith LH. Adnexal masses in

- pregnancy: how often are they malignant? *Gynecol Oncol.* 2006; 101 (2): 315-21.
8. Glanc P, Salem S, Farine D. Adnexal masses in the pregnant patient: a diagnostic and management challenge. *Ultrasound Q.* 2008; 24 (4): 225-40.
 9. Bunyavejchevin S, Phupong V. Laparoscopic surgery for presumed benign ovarian tumor during pregnancy. *Cochrane Database Syst Rev.* 2013; 1: CD005459.
 10. 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.
 11. Modi M, Nash K, Mukhopadhaya N. Ovarian cysts in pregnancy. *RCOG world congress:* 2013.
 12. Koonings PP, Campbell K, Mishell DR, Grimes DA. Relative frequency of primary ovarian neoplasms: a 10-year review. *Obstet Gynecol.* 1989; 74 (6): 921-6.
 13. Quyang DW, Economy KE, Norwitz ER. Obstetric complications of fibroids. *Obstet Gynecol Clin North Am.* 2006; 33 (1): 153-69.
 14. Mason TC. Red Degeneration of a leiomyomata masquerading as retained products of conception. *J Natl Med Assoc.* 2002; 94 (2): 124-6.
 15. Qidwai GI, Caughey AB, Jqacoby AF. Obstetric outcomes in women with sonographically identified uterine leiomyomata. *Obstet Gynecol.* 2006; 107 (2 pt 1): 376-82.
 16. Kokab H, Elahi N, Shaheen T. Pregnancy associated with fibroid: complications and pregnancy outcome. *J Coll physicians Surg Pak.* 2002; 12 (12): 731-4.
 17. Jacobs I, Oram D, Fairbanks J, Turner J, Frost C, Grudzinskas JG. A risk of malignancy index incorporating CA 125, ultrasound and menopausal status for the accurate preoperative diagnosis of ovarian cancer. *Br J Obstet Gynaecol.* 1990; 97 (10): 922-9.
 18. Demeter A, Csapó Z, Szánthó A, Bálega J, Sipos N, Papp Z. A retrospective study of 27 ovarian tumors of low malignant potential. *Eur J Gynaecol Oncol.* 2002; 23 (5): 415-8.
 19. EL Shawarby SA, Henderson AF, Mossa MA. Ovarian cyst during pregnancy: Dilemmas in diagnosis and management. *J Obstet Gynecol.* 2005; 7 (25): 669-75.
 20. Goffinet F. Ovarian cysts and pregnancy. *J Gynecol Obstet Biol Reprod (Paris).* 2001; 30 (1 Suppl): S100-8.

Citation of this article:

Akter MS, Arzoo S, Afroz S, Rahman SMT, Begum SA, Airi K, Islam MM. Pregnancy with Multiple Fibroids and Big Ovarian Tumor: A Case Report. *Eastern Med Coll J.* 2017; 2 (1): 28-31.