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Ovarian Cancer in Pregnancy: A Case Report

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Abstract

A 32-year-old woman presented at 15 weeks and 6 days with vague abdominal pains of one day duration. All information were obtained from the maternal chart. Tumour markers were elevated; CEA: 39, CA125: 226U/ml and CA19.9: 46723. Abdominal-pelvic ultrasound was performed and revealed an intrauterine pregnancy and a well-defined fluid collection with a large left cystic lesion with septa. Magnetic Resonance Imaging (MRI) confirmed an ascites with a large left complex ovarian cyst.

The case was discussed at the multidisciplinary meeting and a decision for laparotomy was made. The woman was counselled appropriately about the procedure and the associated maternal and fetal risks. At 19 weeks gestation, exploratory laparotomy was performed. At surgery, the uterus was gravid and a left ovarian cyst of 15x12 cm diameter with intact capsule was found with a moderate amount of free fluid in the peritoneal cavity with normal appearance. The patient recovered well and was discharged home on day 5 post surgery. The remainder of pregnancy was uneventful and the woman had uncomplicated vaginal delivery at term. The oncology team is now following the patient with no evidence of the disease.

In summary, a multidisciplinary approach consisting of an oncologist, obstetrician, and neonatologist is mandatory and the management of early-stage ovarian carcinoma diagnosed during pregnancy should be started without delay.

Keywords: Ovarian Cancer; Pregnancy; Management

Introduction

Ovarian cancer is the second most common gynaecological cancer in pregnancy after cervical cancer [1,2]. Adnexal masses occur in up to 1% of all pregnancies [3]. The majority of ovarian cysts are functional, which are usually resolved by the first trimester of gestation. However, some adnexal masses persist with 1-3% being malignant [4-7]. Ultrasound is considered to be the best diagnostic tool for the adnexal mass [8]. Magnetic resonance imaging (MRI) is safe and preferred to assess the pelvis during pregnancy accurately [9]. The use of tumour markers to establish the diagnosis of ovarian cancer is of limited use [10].

Currently, there are no definitive guidelines for the management of maternal ovarian cancer [1]. However, the proper management involves staging laparotomy, debulking surgery and adjuvant chemotherapy, or tissue diagnosis with upfront chemotherapy, followed by subsequent debulking surgery [1]. Chemotherapy is contraindicated in the first trimester but it can be administered in the 2nd and 3rd trimester in individualised cases, however, it still remains controversial. The management is case dependent and multidisciplinary care should be sought. It is based on the gestation, the stage of disease, future fertility desires and the mother's wishes to continue with the pregnancy [1,11].

Case Presentation

A 32-year-old primigravida at 15 weeks and 6 days gestation presented to emergency department with vague abdominal pains of one-day duration. The pregnancy was uncomplicated. Her medical and surgical histories were unremarkable. There was a family history of ovarian cancer (maternal grandmother) and breast cancer (mother). On examination she was in pain, her vitals were stable. On abdominal examination, the uterine size was equivalent to 17 weeks gestation. A vague tender mass was palpated in the left iliac fossa region. There was no rigidity or rebound tenderness.

Blood was sent for full blood count (FBC), serum electrolytes, renal, liver function tests and tumour markers. Tumour markers were elevated; CEA: 39, CA125: 226 U/ml and CA19.9: 46723. All markers were repeatedly raised. Abdominal-pelvic ultrasound was performed and revealed an intrauterine pregnancy and a large left septated mass with a moderate amount of free fluid throughout

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Figure 1: Left ovarian tumour before removal.

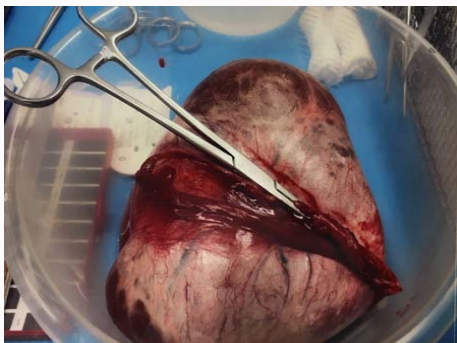


Figure 2: Left ovarian tumour after removal.



Figure 3: Torted left fallopian tube.

the entire abdomen and pelvis. Magnetic Resonance Imaging (MRI) confirmed an ascites with a large (12.6 x 11.5 x 8.6 cm) complex cystic structure within the left side of the abdomen, possibly of left ovarian origin. The thickness of the wall of this session is variable and there is an internal complex cystic component and a 2 x 1 cm mural nodule.

The case was discussed at the multidisciplinary meeting and a decision for laparotomy was made. The woman was counselled appropriately about the procedure and the associated maternal and fetal risks and Long term follow up plan. At 19 weeks gestation, exploratory laparotomy was performed. At surgery, the uterus was gravid and a left ovarian cyst of 15x12 cm diameter with intact capsule was found (Figure 1 and 2)

The left fallopian tube was congested and torted twice (Figure 3). There was moderate amount of free fluid in the peritoneal cavity with normal appearance. The right ovary and fallopian tube looked normal and there were no other lesions. Left salpingo-oophorectomy, omental biopsy and peritoneal washings were performed and the rest

of the surgery was performed in the normal fashion.

Histological examination showed benign mesothelial cells in the peritoneal washing. No malignant cells were found. The omentum showed unremarkable omental adipose tissues. Mucinous cystadenocarcinoma, confined to the ovary pT1a, FIGO 1A.

The patient recovered well and was discharged home on day 5 post surgery. The remainder of pregnancy was uneventful and the woman had uncomplicated spontaneous vaginal delivery at term. The oncology team is now following up the patient with no evidence of the disease.

Discussion

The overall incidence of ovarian cancer in pregnancy is one in 12500–25000 pregnancies [2]. The widespread use of ultrasound in early pregnancy has led to the early diagnosis of ovarian cancer during pregnancy, thus improving the therapeutic approach and outcome [12].

The Diagnostic and therapeutic procedures should be performed carefully if malignancy is suspected, taking into account the risk factors associated with woman and foetus [9]. The treatment should include proper assessment of oncological and obstetric risk, clear decision-making process for the mother and for the child, the appropriate treatment, and careful observation after its completion. Surgical staging should be performed in all suspected early-stage disease, including unilateral oophorectomy or unilateral adnectomy with appropriate staging procedure if possible. Surgery may be planned after 16 weeks gestation because the risk of miscarriage is minimised and chemotherapy can be commenced from the second trimester as in non-pregnant women [13].

A combination of clinical symptoms, suspicious ultrasound features and elevated tumour markers are used to make decisions regarding further imaging such as MRI or treatment strategies. In our case, the decision for surgery was made in the setting of the MDT.

In summary, a multidisciplinary approach consisting of an oncologist, obstetrician, and neonatologist is mandatory and the management of early-stage ovarian carcinoma diagnosed during pregnancy should be started without delay.

References

- Palmer J, Vatish M, Tidy J. Epithelial ovarian cancer in pregnancy: a review of the literature. *BJOG: an international journal of obstetrics and gynaecology*. 2009; 116: 480-491.
- Behtash N, Karimi Zarchi M, Modares Gilani M, Ghaemmaghani F, Mousavi A, Ghotbizadeh F. Ovarian carcinoma associated with pregnancy: a clinicopathologic analysis of 23 cases and review of the literature. *BMC pregnancy and childbirth*. 2008; 8: 3.
- Nelson MJ, Cavalieri R, Graham D, Sanders RC. Cysts in pregnancy discovered by sonography. *Journal of clinical ultrasound: JCU*. 1986; 14: 509-512.
- Leiserowitz GS, Xing G, Cress R, Brahmabhatt B, Dalrymple JL, Smith LH. Adnexal masses in pregnancy: how often are they malignant? *Gynecologic oncology*. 2006; 101: 315-321.
- Jubb ED. Primary ovarian carcinoma in pregnancy. *American journal of obstetrics and gynecology*. 1963; 85: 345-354.
- Bernhard LM, Klebba PK, Gray DL, Mutch DG. Predictors of persistence of adnexal masses in pregnancy. *Obstetrics and gynecology*. 1999; 93: 585-589.

7. Usui R, Minakami H, Kosuge S, Iwasaki R, Ohwada M, Sato I. A retrospective survey of clinical, pathologic, and prognostic features of adnexal masses operated on during pregnancy. *The journal of obstetrics and gynaecology research*. 2000; 26: 89-93.
8. Zanetta G, Mariani E, Lissoni A, Ceruti P, Trio D, Strobelt N, et al. A prospective study of the role of ultrasound in the management of adnexal masses in pregnancy. *BJOG: an international journal of obstetrics and gynaecology*. 2003; 110: 578-583.
9. Skrzypczyk-Ostaszewicz A, Rubach M. Gynaecological cancers coexisting with pregnancy-a literature review. *Contemporary oncology (Poznan, Poland)*. 2016; 20: 193-198.
10. Otton G, Higgins S, Phillips KA, Quinn M. A case of early-stage epithelial ovarian cancer in pregnancy. *International journal of gynecological cancer: official journal of the International Gynecological Cancer Society*. 2001; 11: 413-417.
11. Malfetano JH, Goldkrand JW. Cis-platinum combination chemotherapy during pregnancy for advanced epithelial ovarian carcinoma. *Obstetrics and gynecology*. 1990; 75: 545-547.
12. Barut A, Arikan I, Barut F, Harma M, Harma MI, Payasli B. Ovarian cancer during pregnancy. *JPMA The Journal of the Pakistan Medical Association*. 2011; 61: 914-916.
13. Fruscio R, de Haan J, Van Calsteren K, Verheecke M, Mhallem M, Amant F. Ovarian cancer in pregnancy. *Best practice & research Clinical obstetrics & gynaecology*. 2017; 41: 108-117.