

## Clear cell carcinoma of ovary in pregnancy

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### Abstract

Clear cell carcinoma in pregnancy is a rare event, accounts for less than 1%. Here we present a 29 year old women who was incidentally diagnosed to have an abdominal mass corresponding to 24 week size on her first trimester visit, Ca 125 was 49, MRI pelvis showed large complex ovarian cyst probably cystic ovarian neoplasm. Patient underwent fertility preserving staging laparotomy. Intraoperative right salphingo-ovariotomy was performed. Histopathology reported as Clear cell carcinoma of ovary. The couple decided to undergo Medical termination of pregnancy after multidisciplinary team counselling provided by Medical oncologist and obstetrician. After six months of adjuvant chemotherapy with paclitaxel and carboplatin patient improved symptomatically better and is on regular follow up.

**Keywords:** Clear cell carcinoma of ovary.

### Introduction

Ovarian cell carcinoma in pregnancy is a rare event. A woman's lifetime risk of developing an ovarian cancer is 1-1.5%. Usually epithelial ovarian cancer less than 1% develop in younger age group women of about <1%. Ovarian cancers that develop in first 20 years of life are predominantly germ cell tumors and 1/3rd of these turn to be malignant. Majority of ovarian masses in early pregnancy are physiological and resolve spontaneously. Masses persistent beyond first trimester are generally excised to prevent the occurrence of torsion and to exclude malignancy.

Three decades ago, when pelvic ultrasonography was not available the ovarian masses were an incidental finding on clinical examination. Now with the advent of ultrasound availability to assess fetal viability these ovarian masses can be diagnosed at an earlier gestation. The ovarian masses are asymptomatic unless elicited in an ultrasonographic scan or during a clinical examination. The appropriate management of ovarian carcinoma in pregnancy depends upon the early management through conservative surgery with/without preserving pregnancy depending upon the gestational age, perinatal outcome of the mother and the fetus.

### Case Report

29 years old Mrs M, 2 months of amenorrhea patient had done, UPT- positive, Last menstrual period was 22/11/2016, was incidentally found to have a large abdominal mass of size 13.6\*14.2cm in dating scan.

Spontaneous conception.

Known case of rheumatic heart disease, moderate MS with mild pulmonary hypertension with left atrial dilatation

History of acute CVA right brachiofacial paralysis, secondary to cardioembolic stroke on 16/7/16. History of balloon mitral valvuloplasty done on 8/09/2016.

No history of cancer in the family.

**On Examination:** BMI 18.2 kg/m<sup>2</sup>.

**P/A:** Mass corresponds to 24 week size, firm in consistency, Smooth surface, Regular margins, Not mobile, lower border of the swelling not palpable

Ultrasound abdomen showed intrauterine gestational sac 1.16cm with no evidence of cardiac activity. Abdominal cystic mass 14.9\*13.6\*14.2cm with internal echoes, thickened wall – 0.86cm, calcified septa+, Mural nodular calcification present in posterior wall of the cyst (1.3\*0.9cm) suggestive of Mucinous cystadenoma / ? Hydatid cyst with minimal ascites and early intrauterine pregnancy.

MRI PELVIS showed A Large complex abdomino pelvic cystic lesion of size 15.3\*12.0\*15.9cm arising from the right ovary probably cystic ovarian neoplasm Mucinous cystadenoma spread with hydronephrosis secondary to compression by cystic lesion. The bowel loops are displaced around the lesion. The rectosigmoid is displaced to the left. No significant pelvic / para aortic lymphadenopathy. Mild ascites suggestive of right complex ovarian cyst.

Tumour Markers was positive only for Ca 125 - 49.30 U/ml.

Surgical oncology opinion obtained and Planned for fertility preserving staging laparotomy. Family counselled regarding the same. Staging laparotomy was done on 9/1/2017. Peritoneal fluid aspiration done. Systematic examination of the whole abdomen done. Right salphingo-ovariotomy with Adhesiolysis 15x18cm adherent on the posterior surface of the uterus.

Frozen section reported as possibly serous papillary carcinoma with focal germ cell component.

Few yellowish nodules seen over the bladder surface, omentum, sub diaphragmatic area same sent for frozen reported as benign.

However Final opinion deferred. Finally it was found as Clear cell carcinoma of the ovary FIGO stage 1B.

Immediate post op period patient was started on Inj fragmin 5000 IU, IV PIPTAZ 4.5g, tolerated soft solid diet well, passed stools without difficulty.

### Further Management

In view of clear cell carcinoma of the right ovary Stage IB patient underwent MTP after multidisciplinary team opinion. Medical oncology opinion obtained advised termination of pregnancy and to start chemotherapy between 21-28 days after surgery.

### Discussion

As Imaging is currently done during pregnancy, this has led to the early diagnosis and management of ovarian tumors. Ovarian cell carcinoma is relatively rare of which 4 to 12% are epithelial ovarian malignancies. The average age is 34 years old. A study conducted in Northern America showed Endometrial cancer suspected in the case of 950 women, 8 (0.8%) developed clear ovarian cyst and endometriosis, from which malignant change occurred.

A retrospective study was conducted in December 2006, when analyzing 27 patients in Seoul, Korea, diagnosed as ovarian cancer in January 1996, with an average age of 29 patients. Conservative management was defined as cystectomy, unilateral salphingo oophorectomy with or without omentectomy with multiple biopsies. 26 patients had conservative surgery preserving pregnancy, and everybody progressed to term and delivered a healthy live child with no congenital defects. Only one patient with epithelial ovarian cancer relapsed 19 months after the first conservative surgery by adjuvant chemotherapy.

In young women, cartilage is the most common tumor of pregnancy-related germ cells, accounting for about 25-35% of all cases of ovarian cancer. However, the most common subtype of mesothelioma was immature germ cells.

Surgical management of the anal sphincter diagnosed during pregnancy creates a gynecologist's dilemma. It is difficult to distinguish ovarian malignancies from functional cysts or benign ovarian tumors. The mass of the appendage is 6 centimeters, complicated structure, or continues for 16 weeks of pregnancy than ascites or surgical management is necessary to obtain a final diagnosis of tissue and malignancy elimination.

If an anus blockage is required during pregnancy, surgery should be performed during the safest pregnancy. When reducing the risk of spontaneous abortion, it will in most cases defer selective surgery for tumors with low suspicion of malignancy up to the second quarter (16-18 weeks of gestation) when resolving functional cysts. In the first 3 months postoperative abortion rate was 10%, 76.3% of patients progressed to complete delivery. This block, first observed in the third quarter, is best treated by waiting for maturation of the fetus as long as the clinical suspicion of malignancy is low. If surgery is performed during the third pregnancy, premature birth is likely to occur and the consequences of pregnancy are bad.

Principles of management of ovarian cancer complications of pregnancy include surgery with appropriate staging. In case of advanced disease, the principle of staging surgery should be similar to that used for treatment of non-pregnant women. In most cases of early ovarian cancer, the surgical principle should be unilateral oophorectomy with appropriate staging or eradication of anal deformity. In particular, for borderline ovarian tumors and bacterial cell tumors, a conservative surgical strategy must be used to maintain pregnancy. Because these tumors are traditionally standardized chemical treatment with high sensitivity, most tumors can be reproductive cells of malignant ovarian treatment by conservative surgery without compromising survival. Boundary malignancies differ from aggressive epithelial ovarian cancer in its dysfunctional behavior and good predictability. In the Gottlieb report, all 6 patients who underwent rectal preservation surgery to maintain pregnancy have achieved satisfactory results. Even at the late stage of the disease, the conservative surgery is safe for these tumors also in the lack of fixed rates of treatment of ovarian malignancy after surgery. Surgical management should be considered conservative for malignant germ cell ovarian tumor and malignant tumor diagnosed maternally during proper pregnancy as initial treatment.

Gastric epithelial cancer has the worst warning for all types of ovarian cancer. Standard management involves hysterectomy and samples taken from lymph nodes and EOC initial surgery, peritoneal cavity (peritoneal dialysis, egg eradication, multiple peritoneal biopsy and peritoneal removal). Recently, with the help of many advanced diagnostic tools, with the increase in self-monitoring of women's health, the early detection of ovarian cancer is increased and the prevalence of prenatal ultrasonic routine, common pregnancy Discovery of large chunks inside. In contrast to previous EOC management strategies, most young patients with malignant tumors want to manage them focusing on the target.

### Conclusion

When a young woman in reproductive age group presents with pelvic mass, evaluation should be done initially to assess the nature of tumor. Laparoscopy / Laparotomy based on gestational age. Treatment for ovarian malignancy / borderline malignancy in pregnant women is surgical intervention at the earliest.

**Conflict of Interest:** None.

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