

## Case Report

# Bilateral Ovarian Teratomas with Concurrent Ectopic Pregnancy at Diagnostic Laparoscopy

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Received: October 13, 2014; Accepted: November 05, 2014; Published: November 07, 2014

## Abstract

**Background:** Benign mature cystic teratoma accounts for approximately 33% of all benign ovarian neoplasms with the majority occurring between ages 10 and 30. Studies have shown that about 60% are asymptomatic at diagnosis and approximately 10% of cases are found during pregnancy with transvaginal ultrasound having a specificity of about 98% but there have only been a few documented cases of simultaneous occurrence of an ectopic pregnancy and an ovarian teratoma.

**Case Report:** A 24 year-old multiparous lady with persistent pelvic pressure and pain of about month duration with a plateauing BHCG level and no evidence of intrauterine pregnancy had a diagnostic laparoscopy with findings of a ruptured right ectopic gestation and ovarian mass, which required a right salpingo-oophorectomy with a left ovarian cystectomy done for an incidental finding of a 6cm complex left ovarian mass. Pathology evaluation confirmed a right ruptured ectopic pregnancy and bilateral benign mature cystic teratoma.

**Conclusion:** Due to the possibility of complications resulting from the presence of an enlarged ovarian teratoma, it might be necessary to proceed with an ovarian cystectomy at the time of surgery for other pathologies; ruptured ectopic pregnancy would be inclusive.

**Keywords:** Mature Cystic Teratoma; Ectopic Pregnancy

## Abbreviations

BHCG: Beta subtype of Human Chorionic Gonadotropin.

## Introduction

Acute pelvic pain is a common presenting complaint among reproductive aged women, which can be accounted for by numerous etiologies. Therefore, it is imperative that the Obstetrician-Gynecologist quickly discern the need for acute surgical intervention for conditions that could potentially become life threatening [1]. Such conditions include, but are not limited to, hemorrhage from a ruptured ectopic pregnancy or ovarian torsion from an enlarged adnexal mass. Benign mature cystic teratomas account for approximately 33% of all benign ovarian neoplasms, with the majority occurring between the ages 10 and 30 [2]. Studies have shown that about 60% of dermoids are asymptomatic at diagnosis and approximately 10% of cases are found during pregnancy while the bilaterality rate is about 13.2% [3]. Furthermore, ectopic pregnancies account for approximately 1-2% of all pregnancies [3]. Having multiple gynecologic pathologies concomitantly is rare; the incidence of having both an ectopic pregnancy and dermoid is unknown and poorly documented in the literature.

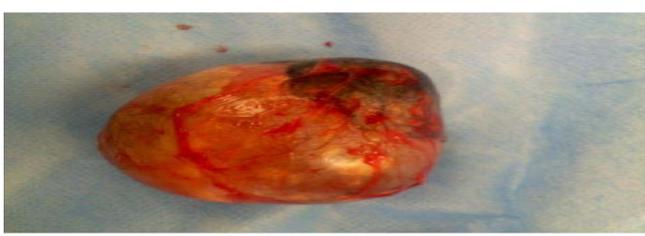
## Case

A 24-year-old Caucasian multipara presented to the Emergency Department approximately 4 weeks after her last menstrual period complaining of persistent pelvic pressure and pain over the past month. She reported having abdominal cramping and vaginal bleeding for three days that had significantly increased within the

prior 24 hours. Upon presentation, she was hemodynamically stable and her hemoglobin and hematocrit in the ER were 12.6g/dl and 36.5%, respectively. A urine pregnancy test was positive, and her quantitative beta HCG was 2990mIU/ml. Following evaluation, she was discharged with the diagnosis of a threatened abortion but re-presented to the hospital the following day with symptoms of worsening abdominal pain and continued vaginal bleeding. Her hemoglobin and hematocrit at this time were 11.5 and 34.1 and beta HCG was 1765mIU/ml. There was severe cervical motion tenderness on pelvic examination and a transvaginal ultrasound demonstrated a moderate amount of free fluid in the posterior cul-de-sac with no evidence of an intrauterine pregnancy but an incidental left ovarian complex cyst. The patient underwent a diagnostic laparoscopy, which showed a ruptured right ectopic pregnancy with a complex right ovarian mass in addition to a 6cm complex left ovarian



Figure 1: Ruptured right tubal pregnancy and cyst.



**Figure 2:** Left Ovarian dermoid cyst.

mass. The surgery was later converted to a laparotomy with right salpingo-oophorectomy and left ovarian cystectomy done without complication. Pathology confirmed chorionic villi consistent with ectopic pregnancy and bilateral benign mature cystic teratomas.

## Discussion

The likelihood of having a simultaneous ectopic pregnancy with a teratoma is not well documented in the literature. The majority of reported incidents involved the ectopic pregnancy occurring ipsilaterally, and more specifically, within the actual teratoma located either within the fallopian tube or ovarian structures [4]. Dermoids are the most common ovarian neoplasm in young women, occurring bilaterally in 10-15% of cases. Approximately 10% of teratomas are diagnosed during pregnancy; however, most patients are asymptomatic with a large proportion of cysts discovered as incidental findings during laparotomy for other pathology [2]. Presentation usually involves abdominal pain, increased abdominal girth, palpable abdominal mass, constipation, nausea, vomiting and anorexia and large masses can be complicated by torsion, rupture, infection, hemorrhage, and malignant degeneration. Approximately 98% of ectopic pregnancies occur within the fallopian tube and many risk factors for the development of aberrant implantation have been identified including a history of prior ectopic pregnancy, fallopian tube surgery or pathology, exposure to DES, smoking, vaginal

douching, and age [5]. However, this patient did not have any of the enumerated risk factors and though she was hemodynamically stable with a beta HCG less than 5000 mIU/mL, she had free fluid in the posterior cul-de-sac indicative of possible rupture warranting surgical management. Furthermore, she had a coincidental finding of an ovarian cyst on ultrasound >5cm, which justified surgical exploration.

## Conclusion

This case reiterates the need for the physician to be thorough in compiling a differential for acute pelvic pain, and it highlights the importance of understanding circumstances that would warrant immediate surgical intervention. Due to the possibility of complications resulting from the presence of an enlarged ovarian teratoma, it may be necessary to proceed with an ovarian cystectomy at the time of surgery for other pathologies; ruptured ectopic pregnancy would be inclusive. Future studies should focus on the epidemiology of multiple pathologies in conjunction with ectopic pregnancy to further elucidate whether or not an ovarian mass may purport an increased risk for aberrant implantation during pregnancy.

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