Case Report

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Third Trimester Torsion of Persistent Ovarian Cyst following Ovarian Hyperstimulation – An Unusual Cause of Preterm Labor

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Key Words

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Abstract

Herein, a patient being operated for cesarean section due to preterm labor in the 31st week of a triplet pregnancy induced by gonadotropins is being described. On celiotomy, peritoneal effusion was present secondary to torsion of a 10 x 6 cm right ovarian cyst. This uncommon finding contradicts the common belief that the chances for an ovarian cyst in the overcrowded peritoneal space due to a 40-week-size uterus to twist around its pedicle are remote. The possibility that preterm labor was initiated by the torsion is discussed.

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Introduction

Ovarian cysts during pregnancy, mainly following induction of ovulation, have been intensively discussed in past and current literature. Most of these reports deal with first and second trimesters, and only few cases have been mentioned to be symptomatic during the third trimester. In spite of the increasing use of gonadotropins for induction of ovulation and the ovarian overstimulation associated with this treatment, there are very few clinical descriptions of late pregnancy ovarian cysts and complications caused by them.

The description of the following case demonstrates the possibility that torsion of an ovarian cyst might be the cause of acute abdominal pain and preterm labor in the third trimester of pregnancy. This is in contrast with the commonly accepted concept that torsion of an ovarian cyst in the third trimester is unlikely due to the very enlarged uterus. Being aware of this possibility and treating it in due time may prevent preterm labor ensuing secondary to peritoneal irritation.

Case Report

A 26-year-old G2 P2, was admitted at 29 weeks gestation, with a triplet pregnancy, complaining of increasing fatigue. She had previously been delivered of a healthy infant by a normal delivery 6 years earlier. Because of secondary infertility, ovulation was induced with Pergonal and Chorigon and she conceived after the first course of treatment. In the 10th week

she was admitted due to severe ovarian hyperstimulation, manifested by pleural effusion, ascites and huge ovarian cysts measuring up to 25 cm. She was treated conservatively and discharged thereafter. Ultrasonographic follow-up of serial scans from that time until her readmission for a routine observation in the 29th week failed to reveal any ovarian mass. Towards the end of the 31st week she began complaining of abrupt right lower quadrant abdominal pain radiating to her right groin followed by nausea, with no gastrointestinal or urinary complaints.

Examination revealed right lower quadrant point tenderness with no signs of peritoneal irritation. On pelvic examination the cervix was 3 cm dilated and 50 % effaced, unchanged since her admission. A surgical consultant found no evidence of intra-abdominal catastrophe necessitating operative intervention. The temperature recorded was 36.8 °C. Her white blood count was 9,200 cells/ml, with normal liver function tests, diastase and urinalysis. The NST demonstrated two contractions per 10 min. An intravenous infusion of MgS < ¾ was started suspecting a preterm labor was ensuing. During the next 2 days, uterine contractions became more frequent and on pelvic examination 6-cm dilatation and 70 % effacement were noted. Her body temperature went up to 37.5 °C and the white blood count was 13,500 cells/ml. The patient was taken to the operating theater for a cesarean section. On surgery while dissecting the peritoneum, a moderate amount of ascitic fluid was seen. After delivering the three babies all three had a good Apgar score; a necrotic 10X6 cm right cystic ovary in torsion was found, with the distal part of the fallopian tube encircled on it. Right adnexectomy was done. Pathologic examination revealed necrosis of lutein cyst. The patient's postoperative recovery was uneventful.

Discussion

The incidence of adnexal mass occurring in pregnancy is reported to be 1 in 81 to 1 in 2,500 live births [1,2]. The widespread use of sonography in obstetrics seems to result in a more frequent diagnosis of asymptomatic ovarian masses prior to delivery. Most of these are corpus luteum cysts which regress by the 16th week [3]. Other delicate and clear cystic masses are also usually benign [4]. Those which either exceed 6 cm in diameter and persist into the second trimester, or those which have solid elements that are septated or have thick margins deserve elective exploration for histological exclusion of malignancy and prevention of subsequent complications such as torsion [5], preterm labor [6] and obstruction of the birth canal [7].

Despite the numerous series of pregnant patients with adnexal masses, the last of which are those by Struyk and Treffers [8] and by Hess et al. [6], there are very few case reports of third trimester ovarian cysts [9]. In those mentioned, the high chances of malignancy and the call for emergent celiotomy are emphasized [6].

No mention has been made regarding either the ultrasonic diagnostic dilemma of ovarian mass masked by the enlarged uterus, or the changes of torsion under these circumstances. Here, although the mass has been sonographically followed, the growing uterus made the detection of the persisting cyst impossible. In this report, we describe a case of torsion of an ovarian cyst which had not been previously diagnosed by ultrasound, and which manifested itself by leading to preterm labor unresponsive to intravenous tocolytic treatment. Although the chances of a big ovarian mass to undergo torsion in an abdominal cavity overdistended by a very large uterus (triplet gestation) are minimal, one should still bear in mind this possibility, especially in women subjected to induction of ovulation who had first trimester overstimulation syndrome. The last reports of conservative management by transabdominal aspiration [9-11] are obviously not applicable here.

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