Isolated torsion of fallopian tube complicating pregnancy: case report

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Summary

Objective: Isolated fallopian tube torsion is a very uncommon condition in pregnancy. Most of the cases presented were in the third trimester. Only one case was reported in labor. The authors report the second case of the isolated tubal torsion during labor. *Case report:* A 18-year-old primigravid woman at 37 weeks of gestation was admitted to labor room with painful uterine contraction. Cervix was one-cm dilated and 70% effaced. Her sonographic and laboratory findings were unremarkable. Approximately four hours later the patient reported sudden pain at lower abdomen. The fetal heart rate tracing showed late deceleration. Preoperative diagnosis was considered as ablatio placenta. Isolated torsion of the right fallopian tube was revealed in cesarean delivery. Healthy infant was delivered and right salpingectomy was performed. Postoperative course was uncomplicated. *Conclusion:* In case of pain unrelated to uterine contraction during labor may be a sign of fallopian tube torsion which is an uncommon condition complicating pregnancy. In such condition, fallopian tube torsion should be kept in mind since early diagnosis may help to preserve the affected tube during labor.

Key words: Tubal torsion; Term pregnancy; Labor.

Introduction

Isolated torsion of the fallopian tube is a rare condition during pregnancy. The most important sign is lower abdominal pain [1]. It might be diagnosed in nonpregnant women with doppler ultrasonography [1, 2]. However it is very difficult to diagnose preoperatively in labor. In this report, a pregnant woman with isolated tubal torsion complicating pregnancy is reported.

Case Report

A 18-year-old primigravid woman at 37 weeks of gestation was admitted to labor room with the complain of painful uterine contraction every five minute. Her medical history and prenatal course were unremarkable. She reported no pain between contractions. She was afebrile with a blood pressure of 125/72 mm/Hg and heart rate of 92 beats per minute. Physical examination was normal. Cervix was one-cm dilated and 70% effaced. The fetal heart rate was approximately 130 beats per minute. Her hematocrit level, white blood cell, and platelet counts were within normal range for pregnancy. In ultrasonographic evaluation, fetal biometric measurements was appropriate with her last menstrual period. Patient received no analgesia and medication. Four hours later, the patient reported sudden pain at lower abdomen with normal vital signs. Physical examination revealed strong uterine contraction and tenderness. Fetal heart rate tracing showed late deceleration. Low transverse cesarean section for fetal distress was performed. Ablatio placenta was not detected. Cesarean delivery of a viable, 2,700 gr infant with Apgar scores of 6 at one minute and 8 at five minutes. Pelvic exploration showed isolated torsion of the distal half of the right fallopian tube. The right tube was twisted three times around itself and its size was 5 x 3 x 2 cm (Figure 1). The right ovary was not involved in torsion. Appendix and contralateral adnexa were normal. After detorsion procedure, the right tube appeared to be ischemic without obvious abnormalities. Right salpingectomy was performed. Postoperative course was uncomplicated. Histopathologic examination of the specimen showed necrosis and hemorrhage.

Discussion

Fallopian tube torsion was first reported in 1890 [3]. The annual incidence of isolated torsion of the fallopian tube is 1/1,500,000 in non-pregnant women [4]. Approximately 80% of tubal torsions are observed in reproductive period, while 12% of them during pregnancy [5]. Most of them is in the third trimester [6]. The diagnosis of fallopian tube torsion was made in labor in the present case.

Torsion usually occurs in abnormal fallopian tubes. Etiologic factors of the tubal torsion is classified in two groups [7]. Intrinsic causes of the tubal torsion are hydrosalpinx, haematosalpinx, tubal neoplasms, and previous tubal ligation or surgery. Ovarian and paratubal cysts, trauma, pelvic congestion, pregnancy, and sudden body position changes are the extrinsic causes [1]. In the present case, the authors thought that the torsion occurred in the result of pregnancy and uterine contractions. Some authors claimed that the gravid uterus exerts a rotational force on the adnexa as the fundal height rises during pregnancy [8]. The force of conractions in labor may contribute to the pathogenesis.

Tubal torsion is seen three times more frequently in the right fallopian tube as in the present case [5]. It is thought to be due to prevention of torsion by the sigmoid colon on the left side or to slow venous flow on the right side which may result in congestion [5].

The most important symptom of tubal torsion is lower abdominal pain which may be accompanied by nausea and vomiting [1]. In advanced cases, abdominal tenderness may

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Figure 1. — Intraoperative view of torsioned fallopian tube.

be obtained. Body temperature and white blood cell count maybe slightly elevated or within normal ranges. Ovarian torsion, acute appendicitis, ruptured ovarian cyst, ablatio placenta, and pelvic inflammatory disease can mimic the symptoms and findings of tubal torsion [9]. Preoperative diagnosis is very difficult and it is always identified during the operations [10, 11]. The present ultrasonographic study showed no abnormal finding. The authors performed cesarean section for fetal distress secondary to the possibility of ablatio placenta. The right fallopian tube torsion was diagnosed incidentally in laparotomy.

Fallopian tube is often edematous when it diagnosed. Detorsion might be attempted in a fallopian tube which has no sign of infarction with early diagnosis [12]. However salpingectomy is performed in most cases [13]. Ovaries should always be preserved unless severly deteriorated or necrosis develops [14]. Tubal detorsion may help preserving fertility but it may also increase ectopic pregnancy risk [14]. The authors performed right salpingectomy because of its gross necrotic appearance and observation of no blood flow return following detorsion procedure.

In case of pain unrelated to uterine contraction during labor may be a sign of fallopian tube torsion which is an uncommon condition complicated pregnancy. In such condition, fallopian tube torsion should be kept in mind since early diagnosis may help to preserve the affected tube during labor.

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