Bilateral Tubal Pregnancies After Tubal Sterilization in a Human Immunodeficiency Virus Seropositive Woman

VORAPONG PHUPONG, M.D.*,
SURASAK TANEEPANICHSKUL, M.D.*,
TASSAWAN RUNGRUXSIRIVORN, M.D.*

Abstract

Bilateral tubal ectopic pregnancies are rare occurrences. Bilateral tubal ectopic pregnancy in a patient who had undergone tubal sterilization is also very rare. The authors report a case of a 32-year-old, gravida 2, parity 1, human immunodeficiency virus seropositive who had previously undergone tubal sterilization. She presented with abdominal distention and vaginal bleeding after 12 weeks of amenorrhea. Pre-operative diagnosis was ruptured ectopic pregnancy. Emergency exploratory laparotomy and bilateral salpingectomy were performed. The pathology report confirmed bilateral tubal pregnancies. She was well at the fifth day of discharge and four-week follow-up. Ectopic pregnancy should always be suspected in reproductive-age patients presenting with amenorrhea even if they have undergone tubal sterilization. To the authors' knowledge, there has been no report of bilateral tubal pregnancy in a patient with human immunodeficiency virus seropositive after tubal sterilization.

Key word : Ectopic Pregnancy, Bilateral, Tubal, Sterilization, HIV Infection

PHUPONG V, TANEEPANICHSKUL S, RUNGRUXSIRIVORN T
J Med Assoc Thai 2002; 85: 1236-1239

Ectopic pregnancy is a frequent occurrence (1). The incidence has increased during the past 20 years. Concomitant intrauterine and extrauterine pregnancies, and bilateral tubal pregnancies are often seen after assisted reproductive technology. Nevertheless, the occurrence of spontaneous bilateral tubal pregnancies is very rare(1). There have been only two prior case reports of bilateral tubal pregnancies after tubal sterilization(1,2). Herein, the authors report bilateral tubal pregnancies occurring in a human immunodeficiency virus (HIV) seropositive woman after tubal sterilization.

* Department of Obstetrics and Gynecology, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand.

CASE REPORT

A 32-year-old Thai woman, HIV seropositive, para 1-0-0-1, who had her last menstrual period on May 1, 2001 presented at the emergency room of King Chulalongkorn Memorial Hospital, Bangkok, Thailand, on August 17, 2001, with complaints of intermittent vaginal bleeding for 17 days, and increased abdominal distention and fainting for one day. She had also undergone Pomeroy tubal sterilization after normal vaginal delivery in 1996. The portions of the fallopian tubes were confirmed by histology. Apart from that, the past medical and family history was unremarkable. The patient had been seen at another hospital on June 2001, with the complaint of vaginal bleeding. Her urine pregnancy test at that time was positive. She underwent dilatation and curettage for a presumed incomplete abortion, without complication. However, she failed to follow-up and was not aware of the pathological result.

Upon presentation, the patient was in acute distress with a blood pressure of 90/60 mmHg and pulse rate 120/min. Immediate intravenous fluid resuscitation was initiated. Following that, the blood pressure was 120/70 mmHg, pulse rate 100/min, respiratory rate 20/min and body temperature 37°C. General physical examination revealed markedly pale conjunctiva. The abdomen was markedly distended with generalized rebound and involuntary guarding. Her pelvic examination revealed a slightly enlarged, softened uterus with cervical motion tenderness and bulging cul-de-sac. Bilateral adnexal tenderness was also presented. The initial hemoglobin was 3.8 g/dl with a hematocrit of 12.5 per cent. Pelvic ultrasonography showed free fluid in the cul-de-sac, normal ovaries, an empty uterus and a 3 cm in diameter right adnexal mass.

The pre-operative diagnosis was ruptured right tubal pregnancy. Emergency exploratory laparotomy was performed. There was a hemoperitoneum of 3,000 ml. Examination of the pelvis revealed a ruptured ectopic pregnancy, 3 cm diameter in the ampulla part of the right fallopian tube distal to the site of tubal interruption. The left fallopian tube also contained a 2.5 cm diameter mass in the ampulla, also distal to the site of tubal interruption. A corpus luteum cyst was noted in the right ovary; the left ovary appeared normal. A bilateral salpingectomy was performed and a total of four units of whole blood were given. The post-operative course was

Table 1. Literature review : cases of bilateral tubal pregnancies after tubal sterilization(1,2).

Authors (year)	Age (years)	Gravida	Parity	Gestational age (weeks)	Mode of previous delivery	Method of tubal sterilization	Years after tubal sterilization	Management
Levy JS et al[2] (1988)	30	3	2	6	Cesarean section	Modified Pomeroy	4	Bilateral salpingectomy
Adair CD et al[1] (1994)	32	5	2	12	Vaginal delivery	Pomeroy	10/12	Bilateral salpingectomy
Present case	32	2	1	12	Vaginal delivery	Pomeroy	5	Bilateral salpingectomy

uneventful, and the patient was discharged on the fifth post-operative day with a hematocrit of 30 per cent. The histology revealed chorionic villi in the lumen of both fallopian tubes confirming the diagnosis of tubal pregnancies, and status post tubal sterilization in both tubes. She was well at the four-week follow-up.

DISCUSSION

Bilateral tubal pregnancies are rare, however bilateral tubal pregnancies occurring after tubal sterilization are much less frequent[1]. To the authors' knowledge, this is the first case of bilateral tubal pregnancies occurring in an HIV seropositive patient after tubal sterilization.

When pregnancy occurs following tubal sterilization, as in the presented case, ectopic pregnancy should be suspected because 32.9 per cent of these cases are ectopic pregnancies[3]. Several mechanisms predisposing to tubal implantation after tubal sterilization have been proposed. Recanalization of the fallopian tube with formation of a narrow lumen large enough to permit passage for the spermatozoa but not for the fertilized ovum, represents the most widely accepted mechanism[4]. Recanalization may also be associated with an irregular tubal architecture that does not permit transportation of a normal ovum [5]. The other mechanism is the formation of tuboperitoneal fistulas in the proximal stump[6].

Regarding the association between HIV and fertility, there have been reports about decreasing fertility in HIV seropositive women[7-9]. This stresses the rarity of the presented case.

The clinical presentations of the reported case and others of bilateral tubal pregnancies after tubal sterilization could not be distinguished from unilateral ectopic pregnancy in general[1,2]. Thus, the diagnosis of bilateral tubal pregnancies is seldom established before operation. It is essential that during the operation both sides of the adnexa should be inspected carefully to confirm that another tubal pregnancy is not missed. The management of the presented case was bilateral salpingectomy as in the previous reports[1,2].

Because of the rarity of this condition, the authors found only two reports on tubal pregnancies after tubal sterilization in a MEDLINE review. It is summarized in Table 1[1,2], which also includes the presented case. In contrast to the previous reports the presented case occurred in an HIV seropositive patient. All cases had postpartum Pomeroy tubal sterilization and were diagnosed during the operation. The range after tubal sterilization was between 10 months and five years. The management of these cases was bilateral salpingectomy.

Ectopic pregnancy should always be suspected in reproductive women presenting with amenorrhea even after tubal sterilization. Careful inspection of both adnexa is also suggested whenever ectopic pregnancy is diagnosed, in order to prevent the potentially life threatening complications associated with missed bilateral tubal ectopic pregnancies.

(Received for publication on September 28, 2002)

REFERENCES

1. Adair CD, Benrubi GI, Sanchez-Ramos L, Rhatigan R. Bilateral tubal ectopic pregnancies after bilateral partial salpingectomy. A case report. J Reprod Med 1994; 39: 131-3.
2. Levy JS, Rosenzweig BA, Blumenthal L. Bilateral tubal pregnancies after tubal sterilization. Obstet Gynecol 1988; 72: 494-5.
3. Peterson HB, Xia Z, Hughes JM, Wilcox LS, Tylor LR, Trussell J. The risk of ectopic pregnancy after tubal sterilization. U.S. Collaborative Review of Sterilization Working Group. N Engl J Med 1997; 336: 762-7.
4. Chakravarti S, Shardlow J. Tubal pregnancy after sterilization. Br J Obstet Gynaecol 1975; 82: 58-60.
5. Honore LH, O'Hara KE. Failed tubal sterilization as an etiologic factor in ectopic tubal pregnancy. Fertil Steril 1978; 29: 509-11.
6. Metz KG, Mastroianni L, Jr. Tubal pregnancy subsequent to transperitoneal migration of spermatozoa. Obstet Gynecol Surv 1979; 34: 554-60.
7. Desgrees du Lou A, Msellati P, Ramon R, et al. HIV-1 infection and reproductive history: A retrospective study among pregnant women, Abidjan, Cote d'Ivoire, 1995-1996. Ditrame Project. Int J STD AIDS 1998; 9: 452-6.
8. Desgrees du Lou A, Msellati P, Yao A, et al. Impaired fertility in HIV-1-infected pregnant women: A clinic-based survey in Abidjan, Cote d'Ivoire, 1997. Aids 1999; 13: 517-21.
9. Glynn JR, Buve A, Carael M, et al. Decreased fertility among HIV-1-infected women attending antenatal clinics in three African cities. J Acquir Immune Defic Syndr 2000; 25: 345-52.

การตั้งครรภ์ที่ท่อนำไข่ทั้งสองข้างภายหลังการทำหมันในหญิงที่ติดเชื้อเอ็ชไอวี

วรพงศ์ ภู่พงศ์, พ.บ.,*
สุรศักดิ์ ฐานีพานิชสกุล, พ.บ., ทัศน์วรรณ รังรักษ์ศิริวร, พ.บ.**

การตั้งครรภ์ที่ท่อนำไข่ทั้งสองข้างพบได้น้อย ส่วนการตั้งครรภ์ที่ท่อนำไข่ทั้งสองข้างภายหลังการทำหมันพบได้น้อยมาก คณะผู้รายงานได้รายงานหญิงที่มีเชื้อเอ็ชไอวี อายุ 32 ปี ตั้งครรภ์ครั้งที่ 2 โดยได้รับการทำหมันมาแล้ว มาด้วยอาการท้องอืดและมีเลือดออกทางช่องคลอดหลังขาดระดูมา 12 สัปดาห์ เธอได้รับการวินิจฉัยเบื้องต้นว่ามีการแตกของการตั้งครรภ์-นอกมดลูก เธอได้รับการผ่าตัดเปิดหน้าท้องฉุกเฉินและได้รับการตัดท่อนำไข่ทั้ง 2 ข้าง ผลตรวจทางพยาธิวิทยาเข้าได้กับการตั้งครรภ์ที่ท่อนำไข่ทั้งสองข้าง เธอออกจากโรงพยาบาลวันที่ 5 หลังผ่าตัดและปกติดีเมื่อมาตรวจติดตาม 4 สัปดาห์ โดยสรุปว่าควรที่จะนึกถึงการตั้งครรภ์นอกมดลูกในหญิงวัยเจริญพันธุ์ที่ขาดระดูแม้ว่าจะได้รับการทำหมันแล้วก็ตาม คณะผู้รายงานเชื่อว่ายังไม่เคยมีการรายงานภาวะการตั้งครรภ์ที่ท่อนำไข่ทั้งสองข้างภายหลังการทำหมันในหญิงที่มีเชื้อเอ็ชไอวี

คำสำคัญ : การตั้งครรภ์นอกมดลูก, สองข้าง, ท่อนำไข่, การทำหมัน, ภาวะติดเชื้อเอ็ชไอวี

วรพงศ์ ภู่พงศ์, สุรศักดิ์ ฐานีพานิชสกุล, ทัศน์วรรณ รังรักษ์ศิริวร
จดหมายเหตุทางแพทย์ ฯ 2545; 85; 1236-1239

* ภาควิชาสูติศาสตร์-นรีเวชวิทยา, คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย, กรุงเทพ ฯ 10330