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Ectopic pregnancy occurring in the remnant tube of a previous adnexectomy: a case report

Y.B. Whang[1], S.Y. Kim[1], S.Y. Nam[1], S.G. Yeo[2], D.C. Park[1]

[1] Department of Obstetrics and Gynecology, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Suwon
[2] Medical Science Research Institute, Kyung Hee University Medical Center, Seoul (Korea)

Summary

Ectopic pregnancy occurring in the same region is a comparatively rare disease, but sometimes it is very serious to patients if it is delayed. The authors present a case of spontaneous ectopic pregnancy occurring in the ipsilateral salpingectomy stump of a previous adnexectomy that was successfully removed via laparoscopic surgery without complication. This case may support the idea of intrauterine transmigration of a fertilized egg as an etiology of spontaneous ectopic pregnancy. Thus, the potential for ectopic pregnancy in the tubal remnant in cases of previous salpingectomy or adnexectomy needs to be carefully considered.

Key words: Ectopic pregnancy; Intrauterine transmigration.

Introduction

Ectopic pregnancy occurs in 1.3~2% of all reported pregnancies in the Western world [1]. A previous study on ectopic pregnancy done in the same region revealed an incidence of 3.5% of total ectopic pregnancy [2]. Ectopic pregnancy is a comparatively rare disease, but its incidence may be affected by the prevalence of sexually transmitted diseases, increased tubal sterilization, and reversal procedures, delayed childbearing, assisted reproductive technologies, and higher rates of clinical detection [3]. Women with a history of ectopic pregnancy have an approximately eight-fold greater risk of experiencing another ectopic pregnancy [4].

Case Report

The authors present the case of a 22-year-old, para 1001 female who presented to the emergency room with colicky lower abdominal pain that became generalized. The patient had no history of indigestion or other gastrointestinal symptoms and reported menstruating two weeks prior. She underwent a left adnexectomy for a large ovarian serous cystadenoma five years prior in the present hospital.

The patient was in painful distress and had a mild fever of 37.4°C. Her chest was clear, with a pulse rate of 124 beats per minute and blood pressure of 80/55 mmHg. Her abdomen was rigid and tender, with the tenderest point in the left suprapubic area. Vaginal examination showed grossly free except bulging of the posterior fornix. The patient's uterus was of normal size and anteverted. There were no palpable pelvic masses, but she felt severe cervical motion tenderness.

The patient appeared very pale, and her hemoglobin was 8.7 gm/dl. Urine human chorionic gonadotrophin (urine hCG) was found to be positive (>35 IU/ml). Using transvaginal ultrasonogram, a thick and hyperechogenic endometrial lining was seen, but no gestational sac was present in the uterine cavity and a complex mass was noted in the left cornual area with heavy fluid collection in the peritoneal cavity (Figure 1a). Douglas pouch was filled with fresh blood by culdocentesis. A left salpingectomy was performed on the remnant salpinx. An aborted-type gestational sac was located in the remnant of the left salpinx, the site of previous adnexectomy (Figure 1b). Findings at surgery included hemoperitoneum of 500 ml, which was vacuumed and irrigated with 4,000 ml of normal saline. The patient was found to be stable after surgery and was discharged three days postoperative. Histology revealed a left tubal ectopic pregnancy.

Discussion

Ectopic pregnancy accounts for 2% of first trimester pregnancy [5]; of them 98% are in various parts of the fallopian tube and 70% are in the ampullary region, 12% isthmic, 11.1% fimbrial, 3.2% ovarian, 2.4% interstitial, and 1.3% in the abdominal cavity [6]. Furthermore, pregnancy occurring in the remnant tube after ipsilateral salpingectomy is assumed to be even rarer, especially in cases of spontaneous pregnancy, the exact incidence of it remains unclear. According to a report by Takeda *et al.*, this rare disorder comprised 1.16% (2/173) of all ectopic pregnancy cases in their institution [3]. It is conceivable that, following ovulation from the one of the ovaries, an oocyte may have been normally fertilized in the ipsilateral tube before moving to the contralateral remnant tube via intrauterine migration. Cases of ectopic pregnancies contralateral to unilateral intrafallopian gamete and embryo transfers have been previously reported [7] and may support this supposition. Alternatively, the possibility that an egg fertilized in

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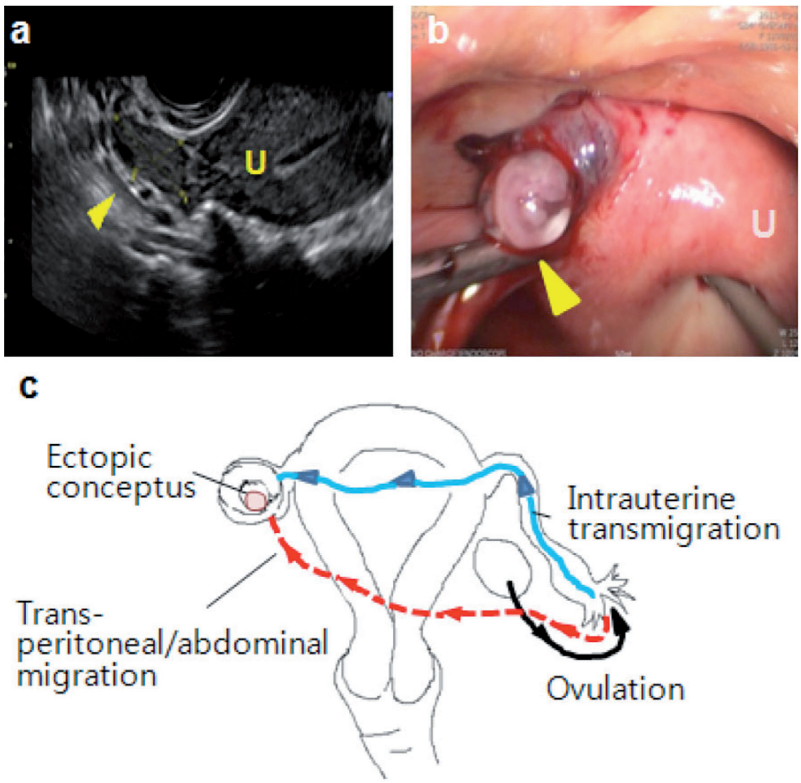

Figure 1. — (a) Ultrasonogram of ectopic pregnancy (axial view of uterus). (b). Laparoscopic finding of ectopic pregnancy. (c) Intrauterine and transperitoneal/ transabdominal migration of fertilized egg. U: uterus. Arrow: ectopic conceptus.

the ipsilateral tube migrated transperitoneally or transabdominally and passed through a fistula into the contralateral tubal stump, leading to local embryo nidation, cannot be excluded [3] (Figure 1c). However, it remains unclear which factors would influence such a migration to the contralateral fallopian tube, and which stages of a fertilized egg would be capable of this migration. The present authors suspect that in this case fertilization may have occurred in a distal portion of the fallopian tube, such as the fimbriae.

Prevention of this kind of ectopic pregnancy remains a challenge. If complete resection of the tube had been performed during the initial salpingectomy, occurrence of ipsilateral ectopic pregnancy in the remnant tube could not have occurred [8]. However, as described above, according to the theory of intrauterine migration, the occurrence of interstitial/cornual pregnancy after ipsilateral salpingectomy/adnexectomy may not be prevented even by near complete resection of the tube. Ipsilateral remnant tubal pregnancy cannot be ruled out in cases of prior ipsilateral salpingectomy/adnexectomy.

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Corresponding Author:
D.C. PARK, M.D., Ph.D.
Department of Obstetrics and Gynecology
St. Vincent's Hospital, 442-723
93-6, Ji-dong, Paldal-gu, Suwon
Kyeonggi-do (Republic of Korea)
e-mail: park.dongchoon@gmail.com