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Ectopic pregnancy at the ovarian site☆

Ectopic pregnancy, a condition in which the gestational sac is outside the uterus, is a very common emergency during the reproductive age. An earlier diagnosis of such a condition is possible because of the availability of sensitive and specific radioimmunoassays for human chorionic gonadotropin (hCG), serum progesterone screening, high-resolution transvaginal ultrasonography, and most importantly, clinical suspicion and careful history taking [1]. For an ambiguous clinical situation, laparoscopy might be one of the best less invasive procedures to confirm the diagnosis [2,3].

In the last issue of the *Taiwanese Journal of Obstetrics and Gynecology* (Volume 51, Number 3, Pages 458–459), a case report by Shiau and colleagues [4] attracted our interest. The authors described a primary ovarian pregnancy following intrauterine insemination (IUI). Based on the description, this 24-year-old woman had the following conditions: a 2-year history of primary infertility, polycystic ovary syndrome, and two controlled ovarian stimulation cycles. Six weeks before admission, the patient underwent a third cycle of an ovulation-induction protocol, which included administration of 100-mg clomiphene for 5 days (days 3–7), 2 ampoules of human menopausal gonadotropin for 5 days (days 5–9), and then a 10,000 IU hCG injection, followed by IUI for 36 hours. She received 100-mg micronized progesterone capsules daily for luteal phase support. However, her last menstrual period was reported 1 week before this admission, although the authors had noted that the menstrual date was delayed 2 weeks longer than expected.

The clinical course of this patient changed dramatically when she was in the emergency room for abdominal pain. The final diagnosis of ruptured ovarian ectopic pregnancy was made during exploratory laparotomy with a favorable outcome. This case report is highly educational; however, some important issues are worth discussing. First, was it possible to evaluate the patient earlier? Because the patient underwent an assisted reproductive technique (ART), the outcome of ART might have triggered the attention of both the patient and the physician to a successful pregnancy. Therefore, serial serum levels of beta-hCG or ultrasound might have been used frequently with this patient, resulting in an early detection of any abnormal pregnancy. If the authors could provide these data, the clinical course of this patient might be clear. It is well known that unusual ectopic pregnancies at the ovaries, cervix, abdomen, or interstitial, cornual sites, or unknown locations often result in a more complicated clinical status, including difficulty in making an early and accurate diagnosis, an inconsistent therapeutic approach, or unpredictable outcomes, which lead to a risky life-threatening status [5–10].

Second, the clinical diagnosis of ovarian ectopic pregnancy was not easy with this patient, because menstruation-like vaginal spotting occurred 1 week before admission. It should be emphasized again that in women with abdominal pain during reproductive age, routine urine hCG levels should be checked immediately, and an absence of intrauterine pregnancy should call our attention to the possibility of ectopic pregnancy, even though menstruation-like vaginal bleeding had just occurred.

Finally, we emphasize the value of an early application of laparoscopy for this patient [11,12], although some authors comment that diagnostic laparoscopy is now reserved for situations that do not allow delay, for example, in women with a positive urine pregnancy test and rebound tenderness and/or with hemodynamic instability necessitating direct (laparoscopic) operative intervention [13,14].

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