

# Right-sided ovarian ectopic pregnancy with Jaydess *in situ*

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## ABSTRACT

The estimated prevalence of the ectopic pregnancy (EP) is 1–2% of all pregnancies. Ovarian pregnancy is a rare finding with an incidence rate of 0.15% of all pregnancies and 1–3% of ectopic gestations. The use of intrauterine device (IUD) is a significant risk factor of ectopic pregnancy. Jaydess levonorgestrel intrauterine system (LNG-IUS) is considered as an extremely reliable method of contraception with the cumulative Pearl index of approx. 0.9% after a three-year period of use. This study presents a case of failure of the Jaydess intrauterine device *in situ* in a female patient with positive Beta Human Chorionic Gonadotropin (serum b-HCG) who was diagnosed with right-sided ovarian ectopic pregnancy. Although LNG-IUS represents the group of the most efficient contraception methods, the risks of failure still exist and should be taken into consideration. Before the insertion, every female patient should be fully informed on the potential adverse effects by a health practitioner.

**Key words:** ovarian ectopic pregnancy; contraception; intrauterine device failure; Jaydess levonorgestrel intrauterine system; life-threatening hemorrhage; natural conception

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## INTRODUCTION

Ovarian ectopic pregnancy (OEP) is a rare gynecological condition. It commonly ends with an ovarian rupture before the end of the first trimester [1], which leads to a life-threatening hemorrhage. It is worth mentioning that the incidence of OEP after natural conception oscillates between 1 in 2.000 and 1 in 60.000 deliveries and corresponds with 3% of all ectopic pregnancies. Jaydess intrauterine device system contains 13.5 mg of levonorgestrel. It is inserted in the uterus for a definite time period and works as a long-acting, reversible contraceptive measure. It is considered to be one of the most reliable and safest methods.

## CASE REPORT

A patient from our clinic was a 33-year-old woman with three prior natural deliveries. She had an appendectomy as a child and denied suffering from chronic or adnexal diseases. The patient was hemodynamically efficient, with normal skin color and temperature, BP 136/76 mmHg and heart rate (HR) 80/min. She was admitted with severe lower abdominal pain. The pain was persistent for the duration of three days, with a tendency to increase. The patient's last menstrual period (LMP) was nearly 2 weeks before and her menstrual cycles were regular. On admission, blood tests were performed, including serum b-HCG. WBC =  $11.5 \times 10^3/\mu\text{L}$ , CRP = 5.5 mg/L, HGB = 13.5 g/dL. The pregnancy test was positive, with increasing serum b-HCG level (739 mIU/mL → 790 mIU/mL). On the physical examination, the abdomen showed no peritoneal symptoms. In the speculum the vaginal shield of the cervix was normal, IUD threads were invisible. There were no signs of bleeding or staining. The vaginal examination showed the uterus in a neutral position, regular in size and painless; there were no palpable adnexal masses; the pouch of Douglas presented no abnormalities or tenderness. Transvaginal sonography revealed the uterus of normal size with the IUD (Jaydess) placed correctly in the uterine cavity, with no gestational sac, the right ovary measuring 40 x 23 mm and the left ovary measuring 36 x 20 mm. TVS showed echogenically dense fluid (4 cm pocket) in the rectouterine pouch. All the clinical signs suggested tubal ectopic pregnancy. The patient was qualified for a laparoscopic surgery which revealed rupture of the right ovary and signs of bleeding. The aborted gestational sac was found in the rectouterine pouch. The intraperitoneal adhesions were released, the rupture of the ovary was surgically corrected and the aborted gestational sac with a volume of about 150 mL of blood was evacuated. The IUD (Jaydess) was removed from the uterine cavity. The patient was discharged from the hospital after 2 days. The histopathological examination confirmed the OEP.

## DISCUSSION

According to various studies, other locations of the EP may also apply in 1.3% the abdomen and in 3.2% the ovary [2]. The OEP appears in 1/25.000–40.000 pregnancies and is difficult for clinical as well as ultrasound diagnosing. Some ectopic ovarian pregnancies may result from the insertion of IUDs. Intrauterine contraceptive devices are discovered in about 20% of patients with the non-ovarian EP and are uncovered in 57–90% of patients with primary ovarian pregnancy [3]. It may also be caused by altered tubal motility, which facilitates implantation of pregnancy in the ovary [4]. IUDs do not protect against implantation in the ovary [5]. The OEP can be misinterpreted as a ruptured corpus luteum cyst. Chronic minor pelvic pain is the most common clinical feature of ovarian localization of the pregnancy as it was in the case of our patient. In addition, there may be palpable an adnexal mass upon examination. The diagnosis is frequently established during a surgery and requires histological confirmation. However, the diagnosis of ovarian pregnancy is possible in only about 28% of cases during surgical procedures. Although ultrasonography may suggest the proper diagnosis, surgery remains the best method for diagnosis and management.

To conclude, women with a history of ectopic pregnancy should carefully consider the pros and cons of re-insertion of an IUD. In addition, all women who decide to choose the system should be instructed in detail on the risks of using the LNG-IUS as a method of contraception by a medical practitioner.

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