

# Second ectopic pregnancy after previous salpingectomy in multiparous woman — case report

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## INTRODUCTION

Ectopic pregnancy (EP) is one of the most common obstetric complications, occurring at a frequency of 0.6–2% of all pregnancies. The most common extrauterine localization for the embryo is the fallopian tube [1]. Interstitial pregnancy (IP) is a rare subtype of EP, developing in the proximal section of the fallopian tube, passing through the cornu within the myometrium. It accounts for 2–6.8% of all cases of EPs, with a mortality rate of 2–2.5%. Delayed diagnosis or inappropriate recognition as an intrauterine pregnancy (IUP) is often the cause leading to rupture of the gestational sac (GS) and possible massive hemorrhage [2, 3].

## CASE

The patient presented with an amenorrhea and an elevated  $\beta$ -hCG level (44901 mIU/mL) on admission. She was 7 weeks and 4 days pregnant. An ultrasound investigation revealed the GS with embryo with heartbeat and increased vascularity (“ring of fire”) around it (Fig. 1). The pregnancy was localised within the intramural portion of the fallopian tube and the right uterine horn. A craniocaudal length of the embryo (CRL) measured 10 mm.

Initially, our patient was *qualified* for laparoscopic cornual uterine resection and salpingectomy under general anaesthesia. Due to the massive bleeding, the procedure was converted to laparotomy. The pregnancy was finished by removing the right fallopian tube together with the right uterine horn. Hemostasis was achieved. Adhesions between the uterus, intestines, and peritoneum were released. The histopathology examination confirmed EP.

Overall, it was the patient’s fourth gestation. Twenty-one years earlier, the first pregnancy was also ectopic in the left oviduct and ended with a salpingectomy. The second and third pregnancies developed correctly and ended with a caesarean section and vaginal labour (VBAC).

## DISCUSSION

The pathophysiology of the EP includes abnormalities in the para- and endocrine factors, dysfunction of the fallopian tubes, previous EP, ipsilateral salpingectomy, uterus defects, pelvic inflammatory disease (PID), as well as post-inflammatory and post-operative adhesions, gynecologic tumors, intrauterine device (IUD), or in vitro fertilization (IVF) [1, 2, 4]. According to Gao et al. [4], IPs after ipsilateral salpingectomy occur in 11.1%. Our patient had her left fallopian tube removed due to an EP twenty-one years earlier. This was a risk factor for developing another inappropriate implementation of pregnancy.

Treatment depends on the advancement of the gestational age and the individual analysis of the clinical situation such as the size of the GS, presence of fetal heartbeat,  $\beta$ -hCG level, vaginal bleeding, hemodynamic state, pelvic pain, fertility plans [5]. Standard methods include surgical procedures like salpingectomy or salpingostomy, methotrexate (MTX) treatment or expectant management [5].

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**Figure 1.** Ultrasound visualization of the interstitial pregnancy

## CONCLUSIONS

Patients with an EP must be informed about the possibility of a recurrence of ectopic pregnancy. Additionally, it's important to note that a normal pregnancy is still possible for such patients. Ultrasonography plays a crucial role in providing a swift diagnosis of EP, offering the opportunity to carry out treatment procedures that reduce the risk of complications, such as rupture of EP and potentially life-threatening massive hemorrhage.

## Article information and declarations

### Ethics statement

We declare that the patient gave her informed consent to the publication of the case report and the publication of the attached photo.

### Author contributions

Study concept and design: RS, ADC, EW, KP. Data collecting and interpretation: KP, EW. Writing the article: KP, EW. Critical manuscript revision: RS, ADC. Supervision: RS, ADC.

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### Conflict of interest

The authors declare no conflict of interest.

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