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## Case Report

# Tubal Stump Ectopic: A Case Report on Repeat Ipsilateral Tubal Ectopic Pregnancy

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### ABSTRACT

**Background:** Tubal Stump Ectopic is an infrequent event with critical obstetrical consequences. A case is illustrated from Northern Ireland in which an ectopic pregnancy was discovered in the tubal stump previously undergone salpingectomy.

**Case Facts:** A 34-year-old woman (G2 E1) with a tubal stump ectopic of a previous cornual excision two years prior, presented to EPAU complaining of mild abdominal pain and 6 weeks amenorrhoea. She was clinically stable ( $\beta$ -hCG 1407 mIU/mL), while TVUS revealed no evidence of IUP or adnexal mass but fluid in the Pouch of Douglas. Laparoscopic salpingectomy was performed after a diagnosis of tubal stump ectopic.

**Inference:** Women who has had a previously ectopic pregnancy are at a significantly greater probability of relapse. To correctly and quickly identify the implanted location, a TVUS should be conducted. Laparoscopic diagnostic salpingectomy should be performed through excision by diathermy to prevent the risk of EP in the tubal stump.

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### Introduction

Ectopic pregnancy (EP) happens when a growing embryo lodges somewhere other than the uterine cavity's endometrium, most often the tubal ampulla of the fallopian tube which is responsible for 90% of EC, whereas the tubal interstitial component accounts for 2.5% with the remaining implanting in the cervix, ovary, myometrium, and other places [1-3]. EP is one of the most prevalent gynaecologic crises. It only accounts for about 1.3% to 2.4% of all pregnancies [4]. EPs that recur are uncommon, with rates ranging from 6% to 28% [5]. Furthermore, tubal stump pregnancies are even rarer with only a handful of cases, make up 1.16% of all EPs [6, 7]. The tubal stump's unique anatomic placement can lead to the development of a critical obstetrical situation due to tear and internal hemorrhage, resulting in hypovolemic shock and maternal mortality over the first trimester [2]. The ground for investigation involves a consolidation of clinical indicators, measurement of the  $\beta$ -fraction of human chorionic gonadotropin ( $\beta$ -hCG) and examination by vaginal ultrasonography [1]. In this report

from a trust hospital in Northern Ireland, an unusual example of an intrauterine pregnancy combined with a tubal stump is depicted with the goal of raising awareness among obstetricians about the likelihood of tubal stump ectopic pregnancy.

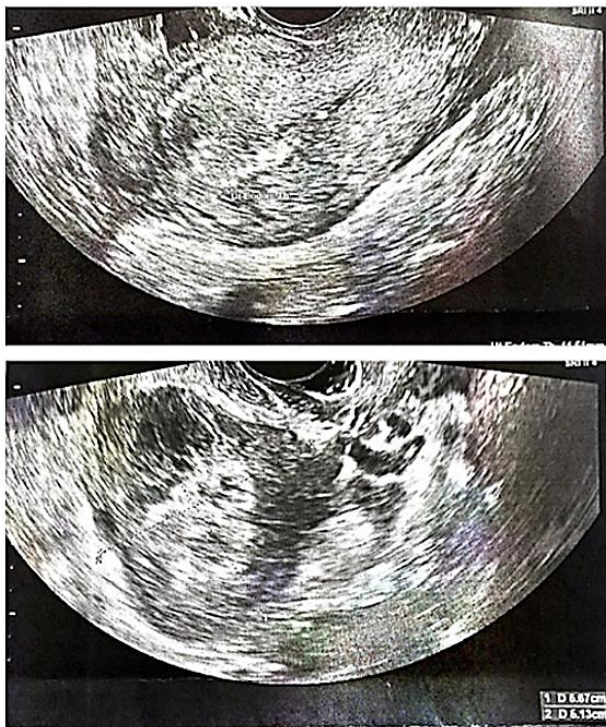
### Case Presentation

An Irish woman aged 34 years visited the Early Pregnancy Assessment Unit (EPAU) with 6 weeks' gestational amenorrhoea and mild crampy abdominal pain for two days. She was Gravida-1 and Para-0 Ectopic-1, without any issues of per vaginal bleeding, nausea, dizziness and gastrointestinal problems as referred by her general practitioner. She had a considerable prior operative history, having undergone a laparoscopic right salpingectomy for right-sided tubal EC two years past. She did not have any substantial medical history. She was a non-smoker, without any allergies and was not on any medications or contraceptives. Her menstrual periods have been inconsistent in the past. She had a typical regular cycle 6 weeks ago that lasted 4-5 days, according to her thorough menstruation history with a recent  $\beta$ -hCG of 1319 mIU/mL. Vital signs

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were stable during the clinical assessment without any signs of pallor, cyanosis or icterus. Blood pressure of 106/76 mm of Hg and a heart rate of 77 beats per minute were recorded. Palpation of the right iliac fossa found it to be soft but mildly sensitive to pain. The cervix was closed and there was neither vaginal blood loss nor secretion on vaginal inspection. The uterus was of average size and was anteverted. There were no adnexal lumps perceptible, and cervical motion discomfort. The haemoglobin and urinalysis were within normal limits. Haemoglobin level was 12.7 g/dL, and  $\beta$ -hCG level after 48 hours of the initial report was 1407 mIU/mL.

A transvaginal ultrasound (TVUS) was conducted and there was no sign of an intrauterine pregnancy (IUP) or residual components of conception. Along with that no adnexal bulge was seen. The likelihood of EP was raised with the availability of fluid in Douglas' pouch with established clots. The patient was informed of the above clinical features and diagnostic tests (Figure 1). Given the strong possibility of an EP, the decision was made after taking consent to perform a diagnostic laparoscopy and depending on the intra-operative results, with the possibility of a salpingectomy. The presence of an ectopic in the right tubal stump with hemoperitoneum was established intraoperatively. Both ovaries were in good condition. There was no sign of the corpus luteum. The left tube appeared to be normal. Aspiration and irrigation were used to remove the blood clots. Diluted vasopressin was administered to facilitate resection of the stump ectopic and lessen intra-operative blood loss. To limit the possibility of a recurring tubal stump pregnancy, the segment of the residual stump was removed using diathermy along with that haemostasis was accomplished. On the second day after operating, the patient was released with no short or long-term consequences.



**Figure 1:** Transvaginal sonography showing ruptured tubal stump ectopic pregnancy.

## Discussion

EP seems to have emerged as a serious medical concern in childbearing age category females due to the high occurrence of gynaecological surgery, pelvic inflammatory illness and aided fertility procedures. It could have a wide variety of medical manifestations and the traditional trio of amenorrhea, abdomen discomfort and cramps, along with vaginal bleeding, is found in just around 50 percent of patients. The wide range of clinical manifestations indicates that diverse populations of patients with EP, particularly those with recurrent EP, might portray variably. In pregnancies, it is still a dominant contributor to morbidity and mortality. EP affects about 1-2 percent of women. Nearly 92 percent of ectopic pregnancies takes place inside the ampulla part of the fallopian tubes, 2.5 percent as interstitial and cornual EP, with cervical, ovarian, and peritoneal EPs being less prevalent [6]. Ectopic pregnancy in the fallopian tube residual stump post salpingectomy is far least frequent. Death rates for stump ectopic are typically 2.0-2.5 percent, compared to 0.14 percent for other EPs [8]. Positioning of the ectopic stump is linked to a significant risk of rupture and serious hemorrhage. This seems to be attributable to the tube's weak elasticity as well as the area's high vasculature [6]. Few occurrences of EP in the proximate or distant stump after partly or completely partial salpingectomy or adnexectomy have been reported previously [2, 5-7, 9-14].

Several theories have been proposed to explain the cause of recurring ipsilateral ectopic pregnancies. According to one explanation, the lumina in the interstitial part and remains of the fallopian tube stay unaltered and perhaps even recanalise even after surgical resection. This allows connection across the endometrial and peritoneal cavities, allowing fertilised egg or sperm to travel from the uterine compartment to the fallopian tube remain. One more theory proposes that sperm cells enter the Pouch of Douglas by the opposite open tube, fertilise the ovum, and embed upon that site of the previously ectopic inside the tubal stump. The last hypothesis is based on trans-peritoneal relocation, in which a fertilised ovum on the healthy tube's side relocates and implants on the tubal stump [13]. In a restricted subset of patients who meet the requirements, anticipated or pharmacological treatment with methotrexate can be used to treat ectopic pregnancy (RCOG Green top Guideline). In current time, however, laparoscopic salpingectomy or salpingostomy is indeed the favoured method (Grade B recommendation RCOG). If the opposite tube is functional, salpingectomy is preferred to salpingostomy because it is linked with a reduced rate of persisting trophoblastic material and potential relapse while keeping its similar intrauterine fecundity chances. However, a salpingectomy does not really guarantee that all ipsilateral ectopic are removed; it still does reduce the chances of a tubal relapse on the same site [15].

In our experience, the patient had hemoperitoneum and a history of the previous EP (salpingectomy done). She was not a suitable candidate for expectant or medical management. Despite uncommon, the risk of the tubal stump, as several years following salpingectomy must indeed be noted. The tube might well have insufficient or superficial fulguration during surgical treatment and had been removed on the tip, leaving a short stump. So, laparoscopic ipsilateral total salpingectomy was performed using diathermy. Because the previous surgical intervention was not flushed with the uterine cornu, this example shows the risk of

the tubal stump after salpingectomy. As a result, physician perception and attention are essential.

### Conclusion

Everyone who has had a previous ectopic pregnancy is at a significant relapse, and this would be the diagnosis to exclude out when a pregnant woman reported abdominal pain or discomfort early in her pregnancy. It is unclear whether a relapse of EC in the leftover tubal stump may be avoided. In conclusion, partial salpingectomy is not advised and it is recommended that if a laparoscopic salpingectomy is attempted, the remnant tubal stump be totally fulgurated, having left no residue.

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