CASE REPORT

# Laparoscopic electrodessication of an interstitial pregnancy

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**Objective:** To report on the case of a woman who presented with lower abdominal pain and vaginal bleeding, and who was diagnosed with early interstitial pregnancy.
**Design:** Case report.
**Setting:** Medical center and teaching hospital.
**Patient:** A 32-year-old woman with a previous history of ectopic pregnancy.
**Intervention(s):** Imaging study with ultrasonography and laparoscopy.
**Main Outcome Measure(s):** Complete resolution of the ectopic pregnancy at the interstitial site of the amputated fallopian tube, and resumption of menstruation.
**Result(s):** Other causes of internal bleeding were ruled out. Menstruation resumed 30 days after the procedure.
**Conclusion:** An early interstitial pregnancy may be successfully managed with laparoscopic electrodessication. (Fertil Steril® 2007;88:705.e19–20. ©2007 by American Society for Reproductive Medicine.)

**Key Words:** Interstitial pregnancy, laparoscopic electrodessication, cornual pregnancy

Interstitial pregnancy occurs in 3%–6% of ectopic pregnancies. The standard treatment involves laparotomy with cornual resection or hysterectomy. There are few reported cases treated with laparoscopy, either by cornual resection, salpingotomy, or injection of methotrexate directly into the ectopic site (1–3).

We report on a case of interstitial pregnancy that was managed by laparoscopic electrodessication of the ectopic site.

## CASE REPORT

A 32-year-old gravida 3, para 0 woman was referred to our hospital. She presented with lower abdominal pain and vaginal bleeding, and a suspected ectopic pregnancy. Her previous history was significant for a left tubal pregnancy that necessitated left salpingectomy.

On physical examination, she appeared pale. Her pulse was 90/minute, her respiratory rate was 20/minute, her blood pressure was at 100/70, and her temperature was 36°C. There was direct and rebound tenderness over the left lower quadrant. A pelvic examination elicited tenderness over the left adnexa. Her urine pregnancy test was positive.

Transvaginal ultrasound showed an empty uterus and a gestational sac with no fetal pole, located in the left adnexa, adjacent to the left uterine cornu (Fig. 1A). Her level of serum $\beta$-hCG was 1,356.1 mIU/mL.

Diagnostic laparoscopy revealed an enlarged and prominent left cornual region, distended to 2 cm in length (Fig. 1B). The contralateral tube and the uterus appeared normal. Several dessications of the interstitial pregnancy were performed with the use of Kleppinger bipolar forceps, with power set to 35 W. The entire 2-cm segment of the remaining cornu was cauterized.

The patient then underwent diagnostic dilation and curretage, and only scanty tissue was obtained. A repeat sonography verified the collapse of the cornual pregnancy. Her postoperative recovery was unremarkable, and she was discharged the following day.

Histopathology of the endometrial tissue showed an Arias-Stella reaction. A week after surgery, her level of serum $\beta$-hCG was 20.5 mIU/mL. She reported menstruation 30 days after the procedure.

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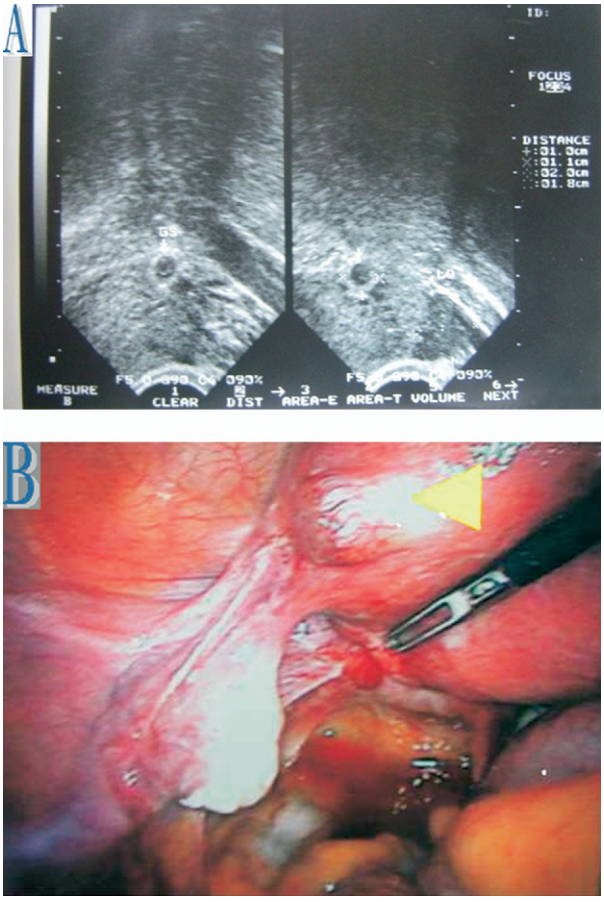
## FIGURE 1

(**A**) Sonograph of gestational sac found at left interstitial part of fallopian tube (beside normal left ovary). (**B**) Ectopic pregnancy (laparoscopic image) at left interstitial part (arrowhead) of previously amputated left fallopian tube.




*Ko. Interstitial pregnancy. Fertil Steril 2007.*

## DISCUSSION

Cornual pregnancy is a rare form of ectopic pregnancy occurring once in every 2,500–5,000 live births. In previous reports, it accounted for a mortality rate of approximately 2%–5% (4). Cornual pregnancy usually develops in the interstitial portion of the fallopian tube, where it passes through the uterine wall. The diagnosis of cornual or interstitial pregnancy early in gestation is very challenging. The development of ultrasound and serial hCG measurements allows for early diagnosis.

Traditionally, cornual pregnancy is managed with salpingectomy, cornual resection, and in some cases hysterectomy by laparotomy. The feasibility of diagnosing early cornual pregnancy allows treatment of this condition by laparoscopy. Cornual resection, salpingotomy, incision of the myometrium, endolooop, or an encircling suture before evacuation of the conceptus and the direct injection of methotrexate or potassium chloride into the ectopic site are among the laparoscopic procedures described in the English-language literature (1–3). To the best of our knowledge, this is the first case report of electrodessication of an interstitial pregnancy.

According to Moon et al., for successful management of an interstitial pregnancy, minimal blood loss during operation, an observed decrease in the serum hCG level, and early resumption of menstruation are essential (3). There is reduced surgical trauma and bleeding with electrodessication. Moreover, its efficacy is evaluated by serial determinations of serum hCG before and after the laparoscopic procedure. A repeat transvaginal ultrasound was also performed. In addition, the resumption of menstruation after the procedure implies successful termination of the pregnancy.

Furthermore, by avoiding deep cornual resection, the possibility of uterine rupture during a subsequent pregnancy is eliminated. Laparoscopic electrodessication may be the treatment of choice for early interstitial pregnancy.

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