

# Unruptured Left Cornual Pregnancy: Case Report

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*Cornual pregnancy is a rare condition. The morbidity and mortality are directly related to the length of time for diagnosis. The present paper reports a case of unruptured left cornual pregnancy which was diagnosed by the patient's symptom, physical examination and positive urine pregnancy test. Ultrasonography confirmed the diagnosis. Left cornual resection was carried out in the present case without immediate or long-term complication.*

**Keywords:** Cornual pregnancy, Ectopic pregnancy

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An abnormal gestation is either intrauterine or extrauterine. Extrauterine or ectopic pregnancy occurs when the fertilized ovum becomes implanted in tissue other than the endometrium<sup>(1,2)</sup>. Although most ectopic gestations are located in the ampullary segment of the fallopian tube, such pregnancies may be found at other sites. Abnormal intrauterine pregnancy often results in pregnancy loss early. With both abnormal intrauterine and extrauterine gestation, early recognition is key to diagnosis and management<sup>(1)</sup>.

Breen<sup>(3)</sup> reported findings of 654 cases as follows; 80% occurred at the ampullary segment, 12% at the isthmic, 5% at the fimbria and 2% at either cornual or interstitial portion of the fallopian tube. In addition, ectopic sites occurred abdominal cavity 1.4%, 0.2% on the ovary, and 0.2% on the cervix.

Although many surgeons have attempted to differentiate interstitial from cornual pregnancy, the two are difficult to separate anatomically and should be classified together<sup>(4)</sup>. Classically, cornual or interstitial pregnancies present symptoms and signs later, since the gestational sac is surrounded by the thicker myometrial walls rather than the weaker thin-walled fallopian tube. If rupture occurs, this area is so well vascularized that hemorrhage can be profound. Traditional therapy advocates hysterectomy or cornual resection as the treatment of choice<sup>(5)</sup>. Today management intervention occurs prior to rupture ectopic pregnancies in more than 80% of cases<sup>(6)</sup>. This can be

attributed directly to three diagnostic advances: a highly specific and sensitive immunoassay for human chorionic gonadotropin (HCG), ultrasonography and the use of laparoscopy<sup>(2,7)</sup>. Earlier diagnosis and more experience in treating this disorder have reduced the maternal mortality rate to approximately 2% to 2.5% of all interstitial and cornual pregnancies<sup>(4)</sup>.

## Case Report

A 40-year-old woman who had lower abdominal pain and abnormal vaginal bleeding for 3 weeks. Her last menstrual period occurred 9 weeks previously with a past history of primary infertility and no contraception. She had severe abdominal pain 2 days before admission. Physical examination revealed a body temperature of 37.2°C, blood pressure of 100/60 mmHg, respiratory rate 20/min, and pulse rate 96/min. The conjunctiva had mild pallor. The lower abdomen was mildly tender with rebound tenderness. Pelvic examination found a slightly enlarged uterus with asymmetry at the left cornue and cervical tenderness on motion.

Transabdominal and transvaginal ultrasonography were performed. The study revealed a slightly enlarged uterus with an empty intrauterine cavity. There was a gestational sac size about 4 cm in diameter at the left cornue of the uterus. A small fetal pole size 1 cm was noted without fetal movement or fetal heart activity. Minimal free fluid was noted at the culdesac. (Fig. 1) Urinary pregnancy test was positive. Laboratory investigation was 25% hematocrit, with hypochromia. An emergency exploratory laparotomy was performed under general anesthesia. There was

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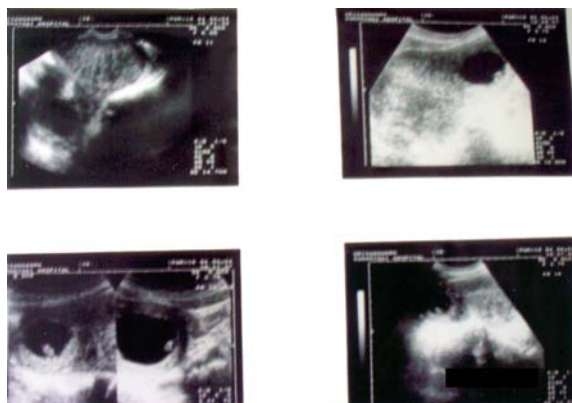
approximately 50 ml of blood in the peritoneal cavity with slightly enlarged uterus and a protruded mass at the left cornual region size 4cms in diameter (Fig. 2). This finding correlated with physical examination and ultrasonography. Normal right fallopian tube, and both ovaries were seen. Left cornual resection was done carefully without perforated in the intrauterine cavity (Fig. 3, 4). The myometrium was approximated with a figure-of-eight closure using No. 1 - 0 chromic catgut. Estimated blood loss during the operation was 300 ml. One unit of packed red cell was transfused. The patient's postoperative course was uneventful. She was discharged 3 days after the operation and was given a follow-up appointment a week later. The pathological report was left cornual pregnancy.

### Discussion

Cornual or interstitial pregnancy is a rare condition that accounts for no more than 2% to 4% of

all tubal pregnancies<sup>(4)</sup>. The estimated incidence is 1 in 2,500-5,000 live births<sup>(3,4)</sup>. The morbidity and mortality are directly related to the length of time before diagnosis.

The diagnosis of interstitial pregnancy is made by critical evaluation of all the criteria used for other types of tubal pregnancy. Symptoms are acute abdominal pain, intraperitoneal bleeding, a low hematocrit, and a positive serum HCG or urine pregnancy test. Ultrasonography, both tranabdominal and transvaginal were done to confirm diagnosis<sup>(1,4,7)</sup>. Asymmetry of the uterus can be misinterpreted as a pregnancy in bicornuate uterus or myoma in a pregnant uterus instead of an interstitial pregnancy. Knowledge of the previous shape of the uterus can help to confirm or exclude the existence of a bicornuate or myomatous utters. A firm protrusion on the uterus suggest a myoma, a soft, tender asymmetric enlargement suggests an interstitial pregnancy. Because ultrasound cannot



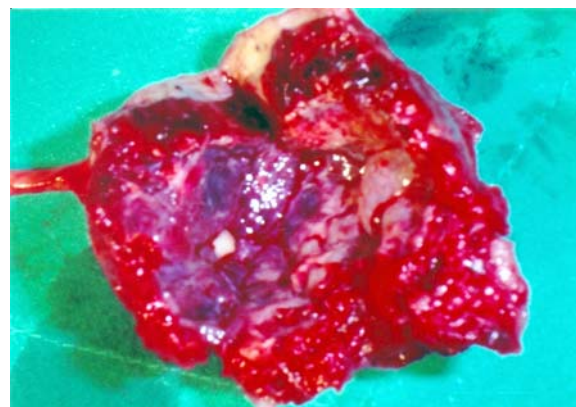
**Fig. 1** Transabdominal and transvaginal approached ultrasound



**Fig. 2** Exploratory laparotomy showed Lt. cornual pregnancy



**Fig. 3** Lt. cornual resection with gestational sac



**Fig. 4** Opened cross section Lt. cornual pregnancy

usually be used to confirm the position of the interstitial pregnancy, laparoscopy is often required to confirm the diagnosis. In case of massive intraabdominal bleeding, an immediate laparotomy should be performed<sup>(4)</sup>.

The etiologic factors for interstitial pregnancy are pelvic inflammatory disease, operative trauma and tumor<sup>(1,4,7)</sup>. The history of primary infertility due to pelvic inflammatory disease in the presented case may be the cause of a left cornual pregnancy. Counseling the patient for possibly recurrent ectopic pregnancy at another site was performed, despite gross anatomical normal findings<sup>(5)</sup>.

In conclusion, the present report showed early diagnosis and management of the case of unruptured left cornual pregnancy. Left cornual resection was done in the present case. Hospital stay was 4 days without immediate or delayed complication. Improvement in both transabdominal and transvaginal ultrasonography,  $\beta$ -HCG assay, an experienced surgeon in clinical symptoms and signs of patient relate to the earlier diagnosis of ectopic pregnancy.

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### การตั้งครรภ์นอกมดลูกที่บริเวณส่วนคอร์นุข้างซ้าย: รายงานผู้ป่วย 1 ราย

สุนทร อินทพิบูลย์

รายงานผู้ป่วย 1 ราย ตรวจพบภาวะตั้งครรภ์นอกมดลูกที่บริเวณส่วนคอร์นุข้างซ้าย ซึ่งวินิจฉัยได้จากอาการผู้ป่วย อาการแสดงที่ตรวจพบผลตรวจปัสสาวะทดสอบการตั้งครรภ์ให้ผลบวก ได้รับการตรวจอัลตราซาวด์ยืนยันผลการวินิจฉัยทำการรักษาด้วยการผ่าตัดส่วนคอร์นุข้างซ้าย ไม่พบภาวะแทรกซ้อนในระหว่างผ่าตัดและหลังผ่าตัด