

INTRAMURAL PREGNANCY DISCOVERED AT 20 WEEKS GESTATION

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ABSTRACT

Intramural pregnancy is a rare form of ectopic pregnancy, wherein the fetus is implanted within the myometrium, separate from the endometrial cavity. Diagnosis is seldom made before uterine rupture or surgery, which could result in life-threatening hemorrhage. In most cases, surgical intervention and even hysterectomy are required. Here, we present a case of intramural pregnancy discovered at 20 weeks gestation, which was successfully treated by laparotomy.

KEYWORDS: intramural pregnancy; ultrasonography; laparotomy; prerule.

INTRODUCTION

Intramural pregnancy is one of the rarest types of ectopic pregnancy. The longest gestation reported with fetal survival in the literature is 30 weeks, but with resulting hysterectomy because of uterine rupture.^[1] However, if diagnosis is made early, treatment may be conservative, resulting in the preservation of reproductive potential. We present a case of intramural pregnancy discovered at 20 weeks gestation.

CASE DESCRIPTION

A 37 years old woman, gravida 3, para 1, presented at 5 months of gestation for lower abdominal pain, appeared 2 days before admission. She had a history of polymyomectomy, vacuum aspiration for incomplete abortion, and cesarean section. There was no history of vaginal bleeding, fever or urinary complaints. She conceived spontaneously. She never had obstetrical ultrasound or antenatal checkups. On admission, patient was afebrile, with normal vital signs. Abdominal examination revealed fundal height corresponding to 20 weeks gestation with soft uterus. On vaginal examination, the cervix was closed and posterior. Ultrasound scan showed an empty uterine cavity with a single fetus of 20 weeks gestation, implanted within the myometrium (**Figure 1**). Fetal heart beat was negative with anamnios. Blood investigations were normal. The preoperative diagnosis was consistent an intramural ectopic pregnancy. An urgent laparotomy was performed, which revealed a prerule intramural pregnancy, located adjacent to the right cornua. Both the ovaries and the fallopian tubes appeared normal. A

circular incision was made in the uterine serosa, forcing enucleation of the fetus and placenta. Fistulous tract communicating was discovered between the endometrial cavity and the location of the intramural pregnancy, repaired with No. 2-0 Monocryl sutures. Visible vessels were coagulated, and the wound was repaired with No. 1 Monocryl sutures. The total operating time was 55 minutes and the estimated blood loss was 150 ml. The patient's postoperative condition was stable and she was discharged home 48 hours later.

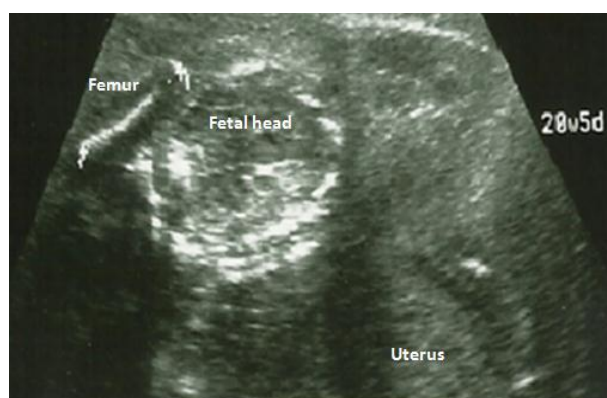


Figure 1: Preoperative ultrasonographic image.

Fetal head and femur were distinct from uterus at the right side.

DISCUSSION

Intramural (or Intramyometrial) pregnancy is defined as gestation completely surrounded by the myometrium

with separation from the uterine cavity, fallopian tube and round ligament. This type of pregnancy accounts for less than 1% of all ectopic pregnancies.^[2] Like in our case, factors thought to predispose patients that are typically present before the development of intramural pregnancy include prior uterine surgery such as cesarean delivery, myomectomy and curettage.^[3] Prior uterine traumas, such as these surgical procedures, are thought to result in sinus tract formation within the endometrium.^[3] One such case report included traumatic in vitro fertilization, after which the transfer of embryos resulted in an intramural pregnancy.^[4] In addition, adenomyosis has also been shown to be associated with intramural ectopic pregnancies.^[5] In our patient, preoperative diagnosis of intramural pregnancy was easy, because of the advanced gestational age and ultrasound findings. However, in early gestational age, it can mimic a degenerating myoma, missed abortion, gestational trophoblastic tumor or normal pregnancy in a congenitally abnormal uterus and can be difficult to distinguish from an interstitial or cornual pregnancy on 2-dimensional ultrasonography.^[6] Three-dimensional ultrasonography may help in the diagnosis of an intramural pregnancy through a more accurate localization of the gestational sac.^[7,8] Magnetic resonance imaging has also been reported as a useful, noninvasive imaging modality with the ability to obtain multiplanar images that provide a clear definition of the relationship between the identified mass and the endometrial cavity.^[6,8] If not treated, complications resulting from intramural pregnancy include inevitable uterine rupture with hemorrhage, hysterectomy, and subsequent loss of fertility. Because of the small number of cases reported, there is no universal method of treatment for this rare form of ectopic pregnancy. Treatment modalities documented in the literature include expectant management, surgical enucleation, uterine artery embolization, systemic or local Methotrexate administration, hysterectomy and intrafetal injection of potassium chloride (KCL).^[6] In the present case, with prerule intramural pregnancy in advanced gestational age (20 weeks), laparotomy with simple reparation of the fistulous tract communicating and the hysterotomy were realized, allowing for future fertility to be available to our patient desired childbearing.

CONCLUSION

Intramural pregnancy is a rare form of ectopic gestation. A history of factors causing trauma to the endometrium should alert the attending physician to its potential. No single universal treatment exists. However, we suggest if this diagnosis is made early using carefully applied ultrasound imaging, ideal conservative medical management can be offered, thus preserving future fertility.

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CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest related to this article.

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