Interstitial pregnancy complicated by rectal bleeding

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An interstitial pregnancy complicated by rectal bleeding is described. Despite modern imaging modalities, confounding features made preoperative diagnosis difficult. The pregnancy ruptured into the ileum. Ossified fetal skull bones and degenerated placental tissue were the only remains from the pregnancy. (Am J Obstet Gynecol 1996;175:1373-5.)

Key words: Interstitial pregnancy, rectal bleeding, ultrasonography

Ectopic pregnancies occur in 1.6% of gestations. More than 95% of ectopic pregnancies occur in the oviduct, with implantation in the interstitial region accounting for 1% of tubal pregnancies. Symptoms of interstitial pregnancies are similar to those of other tubal pregnancies. Most manifest with abdominal pain, amenorrhea, and irregular vaginal bleeding. Presentation often occurs beyond 10 weeks' gestation, with life-threatening intraabdominal hemorrhage a well-recognized complication. We present the fifth reported case of an interstitial pregnancy complicated by rectal bleeding.

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Case report

A 36-year-old woman, gravida 1, para 0-1-0-1, was admitted to a local hospital with a 1-month history of sharp, right-sided lower-back pain. She was sexually active without contraception and unable to recall the date of her last menstrual period. Physical examination revealed a firm, tender pelvic mass extending to the umbilicus. This mass was contiguous with the cervix on rectovaginal examination. The hematocrit value was 16%, and a quantitative pregnancy test showed a β-human chorionic gonadotropin level of 46 mIU/ml. Ultrasonography revealed an enlarged uterus with complex internal echoes and presumed calcifications (Fig. 1). No evidence of a pregnancy was identified, and there was no free fluid in the

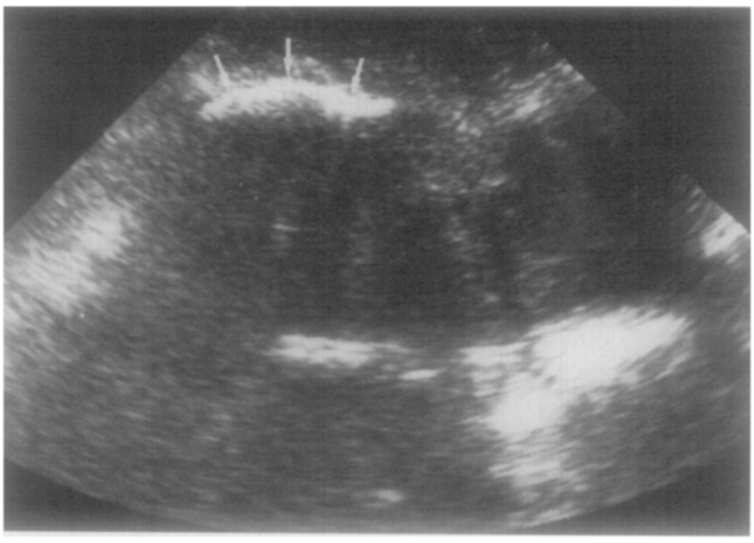

Fig. 1. Ultrasonography revealed curvilinear, echogenic shadowing foci *(arrows)*, originally interpreted as calcifications, that proved on pathologic examination to be fetal skull parts.

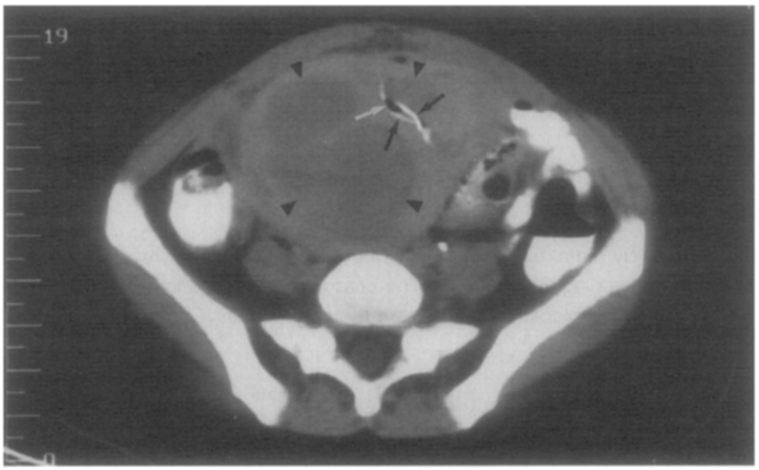

Fig. 2. Computed tomography showed enlarged uterus with numerous rounded masses *(arrowheads)*, intrauterine gas *(white arrow)* from uteroenteric fistula, and curvilinear foci *(black arrows)* that proved to be fetal skull parts.

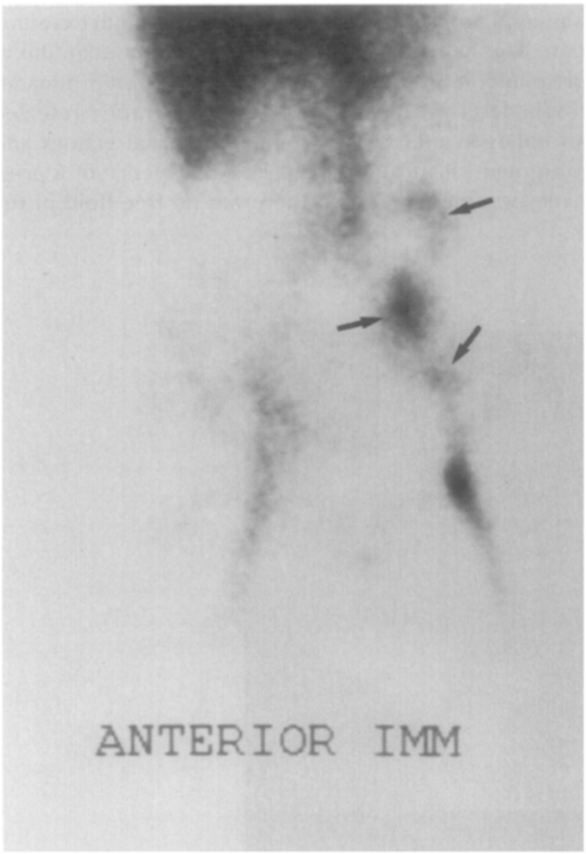

Fig. 3. Radioisotope-tagged red blood cell study localized bleeding site to middle of small bowel *(arrows)*.

cul-de-sac. Serial quantitative β-human chorionic gonadotropin determinations over the next 3 days rose to 62 mIU/ml. A computed tomography scan of the abdomen and pelvis confirmed an enlarged uterus with numerous masses. Within the myometrium were curvilinear, high-attenuation foci and foci of air. The uterus was 14 cm in its maximum diameter (Fig. 2).

Melena was discovered soon after admission. Findings of upper endoscopy to the proximal duodenum were unremarkable. A technetium Tc 99m–labeled red blood cell imaging study localized the bleeding to the middle small bowel (Fig. 3). During 4 days of hospitalization 12 units of packed red blood cells was transfused. Because of concern about possible pelvic malignancy, the patient was transferred to our tertiary-care facility for further evaluation.

Vital signs were stable on arrival. The hematocrit value was 31%, and maroon-colored stool was seen on rectal examination. Exploratory laparotomy was performed. The uterus contained multiple leiomyomas and was approximately the size of a 20-week gestation. A segment of the middle ileum was fixed to the right uterine cornu. The ovaries were normal bilaterally, with the right ovary firmly adherent to the uterus. Total abdominal hysterectomy, right salpingo-oophorectomy, and partial ileal resection with reanastomosis were performed. The postoperative course was unremarkable.

Pathologic evaluation revealed evidence of a right interstitial pregnancy that ruptured through the myometrium into the lumen of the ileum and its mesentery. Degenerated placental tissue and skull bones consistent with a 12- to 16-week pregnancy were found within the

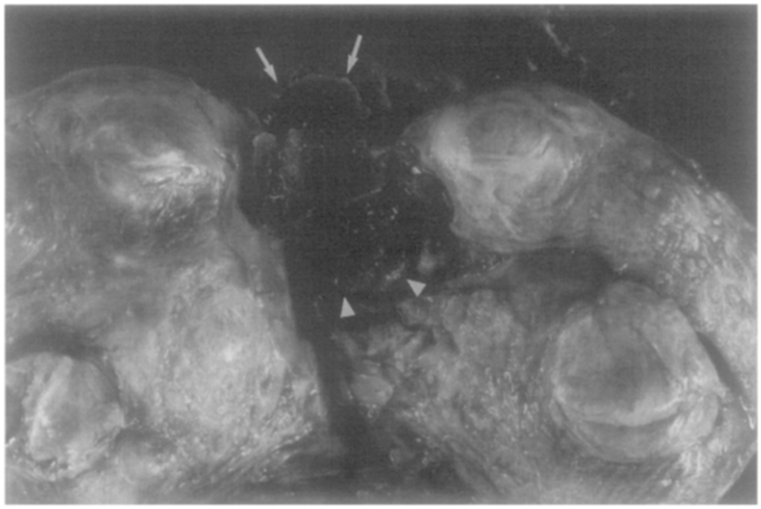

Fig. 4. Bivalved uterus revealed multiple large leiomyomas, degenerated placental tissue *(arrowheads)*, and fetal skull parts *(arrows)*.

myometrium and small bowel lumen (Fig. 4). The skull bones were well formed and ossified. No other fetal tissue was identified. The many uterine leiomyomas ranged from 1 to 4 cm in diameter. A large submucosal leiomyoma distorted the endometrial cavity.

Comment

Rectal bleeding associated with an ectopic pregnancy is rare. Thirteen cases have been reported, four of which involved interstitial pregnancies. Most of the other nine cases were abdominal pregnancies, with a single report of an oviduct pregnancy located distal to the interstitial region. In three of the four interstitial pregnancies, trophoblastic tissue was reported with no identification of fetal remains. One case report of a 3 cm interstitial pregnancy was the only one to include a pregnancy test result, which was positive. The two earliest cases involving interstitial pregnancies resulted in patient deaths. The two cases reported after 1961 were successfully treated.

Ultrasonographic diagnosis of interstitial pregnancy can be difficult. Visualizing the gestational sac in the cornual segment of the uterus suggests an interstitial pregnancy.[1] Possibly more specific is the finding of an incomplete myometrial mantle surrounding the gestational sac.[2] Experience with computed tomography scanning for ectopic pregnancies is limited.

The fetal remains, a portion of the cranium consistent with a 12- to 16-week pregnancy, indicate an extended time from fetal death to presentation. This fact, combined with the degenerated nature of the trophoblastic tissue, makes trophoblastic growth through the small bowel wall, resulting in rectal bleeding, unlikely. We postulate that suppuration of the products of conception resulted in a fistula with the small bowel, manifesting as rectal bleeding. A similar mechanism has been proposed for the rare reports of passage of fetal parts through the rectum or bladder.

The advanced diagnostic modalities used, which are often effective in diagnosing pelvic abnormalities, were of limited benefit in this case. Features confounding the diagnosis of an ectopic pregnancy included the uteroenteric fistula with intrauterine gas, cranial fragments, and multiple leiomyomas. Because of the extreme variability in presentation and the potential difficulty in diagnosing ectopic pregnancies, a high index of suspicion must be maintained in cases for which this diagnosis has been considered.

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