

Cervical Ectopic Pregnancy - A Case Report

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ABSTRACT

Mdm LLG, a 28-year-old Chinese, a gravida 2 para 1, presented at 9 weeks of pregnancy with painless vaginal bleeding. Ultrasound examination showed features of a cervical pregnancy. Hysterectomy was employed for treatment. Various recent conservative and surgical treatment modalities employed for this condition are discussed.

Keywords: cervical pregnancy, pelvic ultrasound, hysterectomy

INTRODUCTION

Cervical pregnancy is a rare and potentially life-threatening condition. Clinical diagnosis may not be straightforward. Ultrasound examination is a useful aid for diagnosis. Hysterectomy remains the cornerstone of treatment although other surgical and medical methods of treatment can sometimes be effective. The following case illustrates a timely intervention by hysterectomy.

CASE REPORT

Mdm LLG, a 28-year-old Chinese housewife, gravida 2 para 1, was referred by her family physician to the hospital Emergency Room as she had profuse vaginal bleeding an hour previously. She was then 9 weeks pregnant.

At the Emergency Room, she did not complain of any lower abdominal pain. Her general condition was satisfactory and her pulse was 78 per minute and blood pressure 120/80 mmHg. There was no tenderness or muscle guarding over the abdomen and the uterus was not palpable. On vaginal examination, there was about 50 mL of blood clots in the vagina. The cervix was closed, the uterus enlarged to 10 weeks gestational size and the appendages were not palpable. She was admitted to the ward for observation, and blood was taken for full blood count and one unit of blood was crossmatched. A pelvic ultrasound was ordered.

When she returned 4 hours later, her general condition was found to be stable. The haemoglobin was 11.8 g/dL and the total white count was 11.8×10^6 /dL with slight neutrophilic leucocytosis.

The pelvic ultrasound report was that the uterus was enlarged and anteverted. The uterus was empty. There was a mixed echoic mass 4.1 x 2.4 cm in the region of the lower uterine segment and cervix. No evidence of fetal pole or heartbeat was demonstrated (Fig 1).

A cervical pregnancy was diagnosed and the patient was informed about it. An emergency hysterectomy was recommended and the patient and her husband gave consent for the operation. A lower transverse skin incision was employed. The uterus was enlarged to 10 - 12 weeks gestational size with 2 small subserous fibroids. The fallopian tubes and ovaries were normal. There was no blood in the peritoneal cavity. Total hysterectomy with conservation of both ovaries was performed. The patient

made an uneventful recovery.

The histopathology showed an enlarged uterus measuring 13 x 7 x 7 cm. Near the junction of the endometrial cavity and the endocervical canal and 3 cm from the external os, was an irregular haemorrhagic and cystic area 1.5 x 0.5 cm. The endometrium appeared haemorrhagic. No gestational sac was noted in the endometrial cavity or the endocervical cavity. Sampling of the endocervical canal showed residual decidua embedded with intermediate trophoblast. The conclusion was an endocervical pregnancy which had undergone abortion.

DISCUSSION

Cervical ectopic gestation is defined as implantation of a fertilised ovum in the cervical canal⁽¹⁾. It is rare but of potentially grave morbidity or even mortality. The incidence is quoted to be about 1:1000 to 1:18 000 pregnancies⁽²⁾. It constitutes a rare (<0.15%) type of ectopic gestation⁽³⁾. Earlier diagnosis with ultrasonography has given the gynaecologist an upper hand to pre-empt the potential catastrophic consequences of an undiagnosed cervical pregnancy.

The clinical criteria for diagnosis of cervical pregnancy, as defined by Paalman and McElin⁽⁴⁾, include:

- 1) amenorrhoea followed by painless uterine bleeding,
- 2) softened and disproportionately enlarged cervix (hour-glass-shaped uterus)
- 3) products of conception entirely confined within and firmly attached to endocervical canal
- 4) a snug internal os and
- 5) a partially open external os.

Ultrasonographic diagnosis may be made when there is an hour-glass-shaped uterus with an empty uterus and a distended cervix containing a gestational sac. The main differential diagnosis of an inevitable abortion may be excluded by the relative smallness of the uterus with absence of any products of conception or blood in the uterine cavity.

Rubin established the criteria for histopathological diagnosis of cervical pregnancy in 1911⁽⁵⁾. These consist of:

- 1) Cervical glands must be present opposite the placental attachment.
- 2) The attachment of the placenta to the cervix must be intimate.
- 3) The placenta must be, in part or whole, below the entrance of the uterine vessels or below the peritoneal reflection of the anterior and posterior surfaces of the uterus.
- 4) Fetal elements must not be present within the uterine cavity.

Traditionally, abdominal hysterectomy has been the standard mode of treatment to control the profuse

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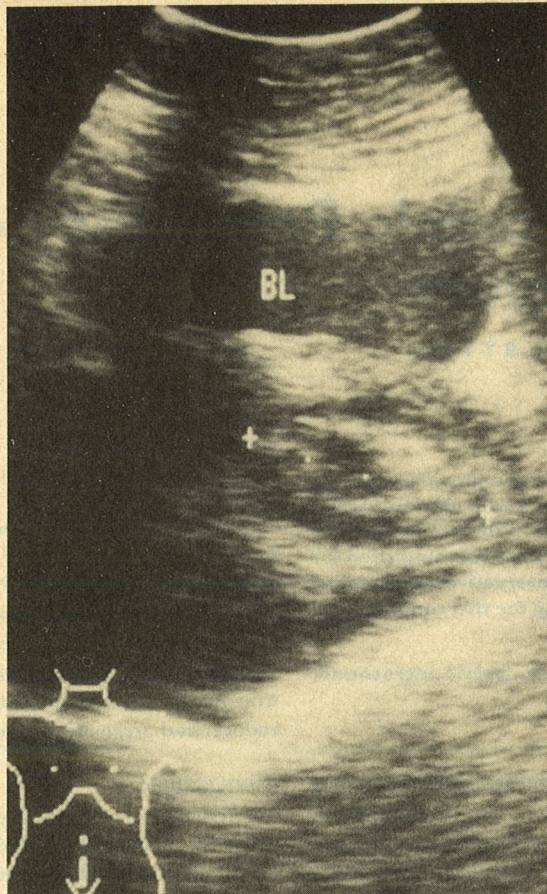


Fig 1 - Ultrasonic picture of the cervical pregnancy
BL - bladder

haemorrhage elicited during attempted surgical curettage. In the case of this patient, she was already 9 weeks into the pregnancy and the fact that she had started bleeding profusely at presentation may mean that she was already in the process of aborting. Given the fact that the cervix is predominantly constituted by fibrous tissues with only about 15% smooth muscle fibres, even with a complete abortion, torrential haemorrhage is a likely aftermath. The pelvic ultrasound examination showed up as a yet unaborting cervical pregnancy in situ. Having fully explained the condition and its risks to the patient, emergency hysterectomy was performed as a life-saving measure. Cervical curettage and tamponade were not attempted as from reports, these have been usually unsuccessful and resulted in uncontrollable haemorrhage for which hysterectomy had to be resorted to. Other procedures like ligation and packing of the cervical canal⁽⁶⁾, circumsuture, and amputation of the cervix, have all been tried with limited success. They are often followed by the need for bilateral internal iliac artery ligation or ligation of the cervical branches of the uterine artery. Not infrequently hysterectomy is still ultimately resorted to but after much effort and haemorrhage with its attendant morbidity.

Recently, several papers have been published on the use of chemotherapeutic agents like methotrexate⁽⁷⁾ and etoposide⁽⁸⁾ as successful alternative therapy to preserve fertility. Farabow et al first described the use of methotrexate to treat a cervical pregnancy in 1983 but failed to preserve the uterus. Wolcott et al similarly failed in their attempt to treat cervical pregnancy with methotrexate, resorting to internal iliac artery ligation, hysterectomy and intracervical balloon tamponade for haemorrhage. Oyer et al and Jerome et al are the ones who successfully used methotrexate in treating cervical pregnancy with preservation of

reproductive function. Jerome et al employed a single dose regime with 480 mg methotrexate given over 12 hours⁽⁵⁾. The rationale was that toxicity of methotrexate was directly proportional to duration of exposure and much less so to the concentration. Possible toxicities include, primarily, myelosuppression, gastrointestinal mucositis and nephrotoxicity, all of which were not seen in their patient. Mild hepatitis is another common complication of methotrexate therapy. Bagshawe and Walden et al also reported that methotrexate may be retained in tissues of animals for 8 months after treatment. Further evaluation regarding subsequent conception following the treatment of cervical pregnancy with this agent needs to be done.

Some have succeeded in evacuating the cervical pregnancy with minimal haemorrhage after angiographic embolisation of the uterine artery bilaterally⁽⁹⁾. Nonetheless, these are all performed electively where diagnosis preceded any complication. The actual efficacy and safety of these conservative methods may be borne out by further reports in the course of time. Meanwhile, the place of hysterectomy in the management of cervical pregnancy remains the standard operative procedure.

CONCLUSION

Despite an apparent increase in incidence, mortality from cervical ectopic gestation has plunged from 45% to 0% and has remained as such, according to Parente's report⁽¹⁾. This remarkable decrease may be attributed to advances in blood banking, anaesthesia, surgical technique and greater awareness leading to early diagnosis. Recent advances in radioimmunoassay and ultrasound techniques and equipment have also enabled earlier diagnosis to be made with possibility of medical management. This is still in its infancy with isolated cases being reported as successfully managed. Nonetheless, it holds great promise for those who wish to keep their uterus for fertility. Meanwhile, the place of hysterectomy, particularly in life-threatening situations is firmly established.

ACKNOWLEDGEMENT

We are grateful to Ms Connie Cheng for her diligent and patient assistance in typing this article.

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