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Conservative management of cervical pregnancy in a woman with multiple previous cesarean sections

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ABSTRACT

Cervical pregnancies (CPs) are dangerous due to associated life-threatening haemorrhage requiring massive blood transfusions and a possible need for hysterectomy. The main aim in the management is to prevent hysterectomy especially in young women who desire fertility. If diagnosed early, conservative management of an asymptomatic CP using systemic or local medical treatment seems superior to the surgical intervention. Surgical intervention as a primary mode of treatment may cause severe haemorrhage. The optimum therapeutic option for symptomatic CP is still unclear. We report a case of cervical pregnancy initially misdiagnosed as threatened miscarriage- in a woman with previous multiple cesarean sections.

Keywords; cervical pregnancy, cesarean section, evacuation, tamponade, miscarriage, uterine artery embolization

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INTRODUCTION

Cervical ectopic pregnancy occurs when a developing embryo implants below the internal cervical os. Previous cesarean section is quoted as a risk factor for cervical ectopic[1]. Recently the incidence has increased to an estimated 1 in 8628 deliveries[2] We report the case of cervical pregnancy in a woman with previous three cesarean sections; who was initially misdiagnosed as threatened abortion when she presented with vaginal bleeding and open cervical os. . Evacuation was done and uterus was conserved with Foley catheter tamponade and uterine artery embolization.

Case History

Mrs. B- a G4P3 at 10+ weeks gestation with history of previous three cesarean sections presented to the emergency department with moderate vaginal bleeding. She was initially diagnosed as threatened miscarriage when she presented with spotting per vaginum two

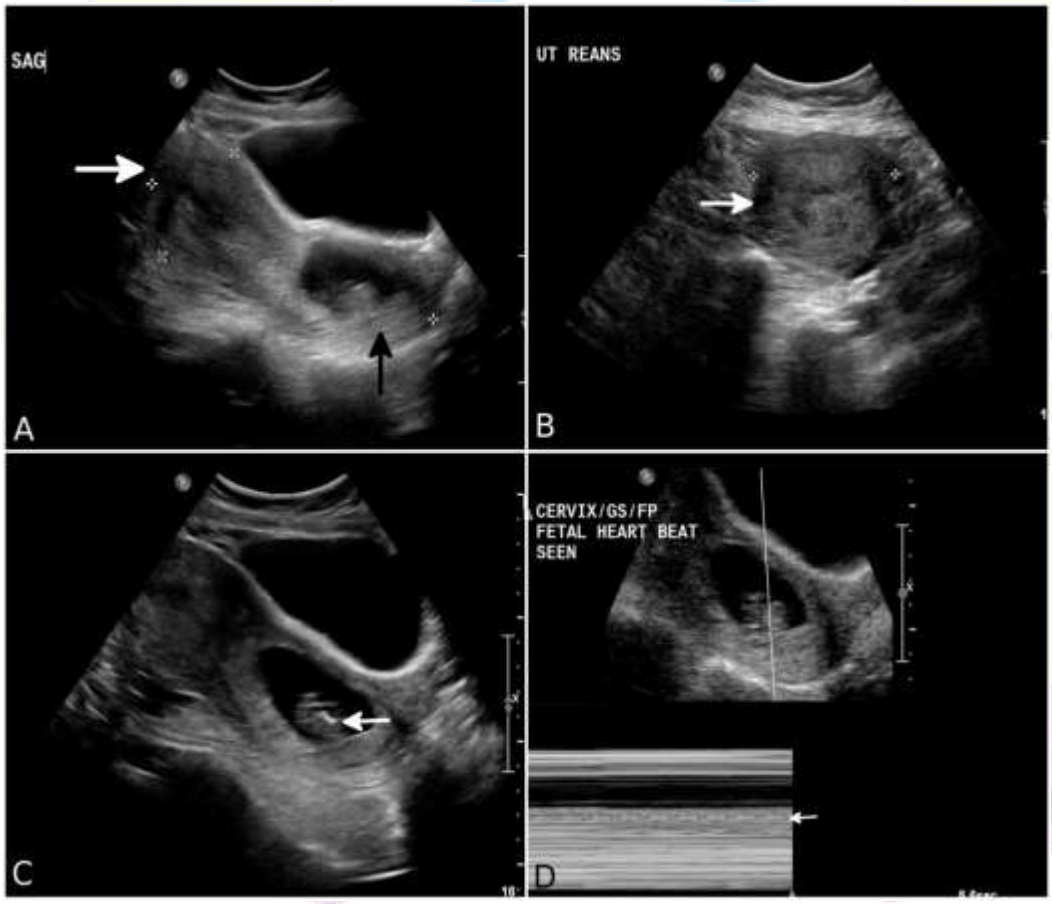

Figure 1: The white arrow in A shows a normal sized uterine fundus with an empty endometrial cavity and a cervical gestational sac (black arrow) in a sagittal plane. The white arrow in B points to an empty endometrial cavity in uterine fundus in axial plane. White arrow in C shows a fetal node in the cervical gestational sac. White arrow in D points to fetal cardiac activity in the M mode imaging of the fetal node in the cervical gestational sac.

weeks earlier to this visit. On examination during this visit she was looking pale with a pulse rate of 87 per minute and blood pressure of 90/56 mm Hg. Abdomen was soft and non-tender. On per speculum examination cervix was closed but ballooned out and there was moderate vaginal bleeding. A transvaginal scan was performed and it was suggestive of cervical pregnancy (Figure 1).

A complete blood count showed hemoglobin of 8.5gm/dl (dropped from 12 gm /dl two weeks earlier). Coagulation screen was normal. In view of active bleeding she was consented for evacuation and curettage and if necessary for hysterectomy. Evacuation was done under general anesthesia and as the cervix was ballooned, fetus and placenta could be removed easily with sponge forceps from the cervical canal. Endometrial cavity was curetted and sent separately for histology. To control the hemorrhage a Foley catheter was introduced into the cervical canal and the bulb inflated to 40 ml. As a prophylactic measure embolization of both uterine arteries were performed. The Foley catheter was removed after 24 hours and there was no further bleeding. The total estimated blood loss was about 1.5 liters and she was transfused two units of matched blood. She made an uneventful recovery. Histopathological examination confirmed products of conception from the cervix and only decidua from the uterine cavity. The beta human chorionic gonadotropin (hCG) became negative in 6 weeks time (Figure 2).

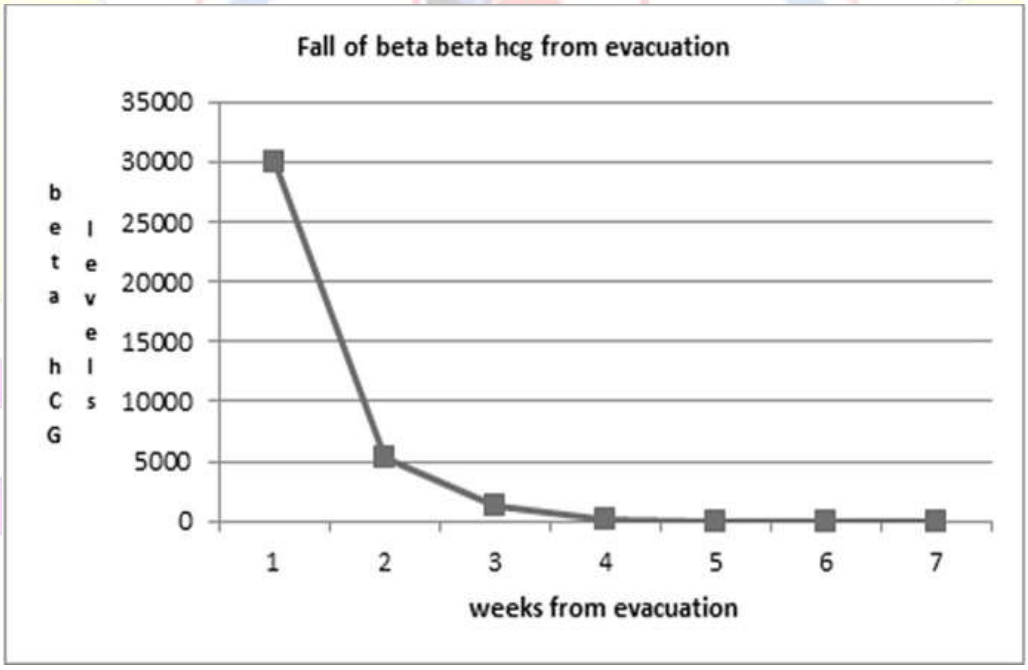

Figure 2: Fall of beta hCG from diagnosis till 6 weeks follow up

DISCUSSION

Cervical ectopic pregnancy is the rarest form of ectopic pregnancy[3] and there is a wide variation in the incidence reported. Ushakov et al has reported the incidence of cervical ectopic as 1 in 8628 pregnancies[2].

Accepted clinical criteria for diagnosis of cervical ectopic pregnancy described by Paalman et al include (1) Uterine bleeding after amenorrhea, without cramping pain, (2) Disproportionally enlarged cervix, (3) Products of conception entirely confined within the endocervix and (4) A snug internal os and partially open external os[4]. Our patient fitted into these criteria well.

Ultrasound criteria for cervical ectopic pregnancy was described by Raskin[5] which include, placental implantation in the cervix, enlarged cervical canal and an hour glass shaped uterus. However further strict measures were laid down by others as below. Hoffman and Yankowitz also mentioned the criteria for the diagnosis but Timor-Tritsch et al. used more stringent criteria; the placenta and the chorionic sac containing the live pregnancy should be located below the internal os and the cervix must be dilated and barrel shaped [6, 7, 8]. The images in our patient fulfilled the very stringent criteria for diagnosis and it comes under type 4 cervical pregnancy as classified by Hwang etal[1].

The diagnosis was not made at the first visit as a live fetus seen in the cervix was mistaken to be in the body of the uterus which was pulled up due to multiple cesarean sections.

Treatment options for cervical pregnancy include expectant, medical treatment with local/systemic methotrexate and surgical evacuation combined with methods of hemostasis like uterine artery embolization/tamponade with Foley catheter in the cervix. Studies suggest that non-surgical methods should be used for primary treatment while surgery should be reserved for those in whom medical treatment is not successful[9].

Our case was different in two aspects: 1. Previous multiple cesarean sections and presentation with significant vaginal bleeding. Conservative management with methotrexate was almost impossible in our patient due to active bleeding at the time of presentation. Hence surgical evacuation was performed butfertility could be preserved by doing uterine artery embolization.

2. A diagnosis of threatened miscarriage was made mistakenly at the initial presentation as a live fetus was seen on transvaginal scan. Due to multiple cesarean sections the fundus of the uterus was pulled up and not visualized properly by the junior colleague.

Though the diagnosis was delayed and the patient presented with moderate vaginal bleeding surgical evacuation and uterine artery embolization was done on time and thus hysterectomy was avoided.

CONCLUSION:

In women with multiple cesarean sections the uterus may be pulled up. Hence trans abdominal and transvaginal scan should be done and should be interpreted along with clinical findings like ballooned cervix for making an appropriate decision in the management.

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