

Cervico-isthmic pregnancy is a potentially dangerous ectopic pregnancy

Sir,

Cervico-isthmic pregnancy may occur in women with a history of previous cesarean section. In first trimester, it is best diagnosed by transvaginal ultrasound.^[1] As soon as the diagnosis is confirmed, special care is necessary. Based on the location, gestational age, size, and viability of the embryo/fetus, conservative treatment or termination of pregnancy should be recommended. In early diagnosis, treatment options are capable of preserving the uterus and subsequent fertility. However, a delay in either diagnosis or treatment may lead to uterine rupture, inevitable hysterectomy, and significant maternal morbidity.

Herein, we briefly report a case of cervico-isthmic pregnancy in a 28 year-old G5L1Ab3 woman with

the history of her only delivery by cesarean section 2 years ago. Her recent pregnancy was complicated by vaginal bleeding since eighth week of pregnancy. Transvaginal ultrasound revealed a normal sized uterus with empty endometrial cavity [Figures 1-2]. Placenta and gestational sac with a viable embryo were located in the cervico-isthmic region. Since the gestational sac was displaced anteriorly, the possibility of ectopic implantation in the previous cesarean scar was considered.

The patient was observed for 2 weeks and color Doppler ultrasonographic evaluation was done every 2 days. Since the distance between the gestational sac and bladder wall was too shortened (myometrial thickness was 3 mm), potassium chloride and methotrexate were injected into the fetal heart and amniotic sac respectively under the guidance of transvaginal sonography to terminate the pregnancy. The intervention was unsuccessful (it may be due to that our team haven't enough skill) and laparotomy was considered for the patient to remove the pregnancy related contents from the cervico-isthmus via an incision at the top of this region. Surgical intervention was successful and the

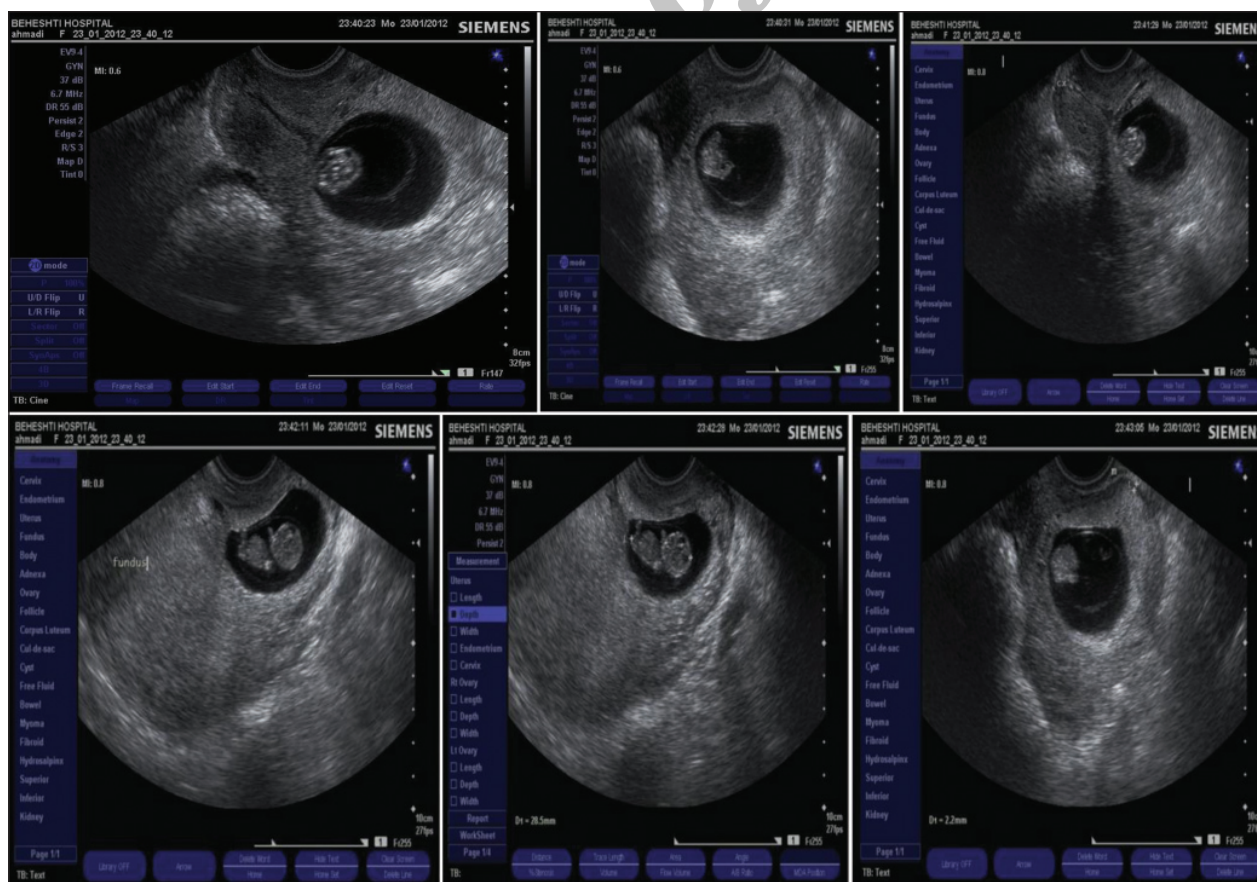


Figure 1: Transvaginal ultrasound revealed a normal sized uterus with empty endometrial cavity. Placenta and gestational sac with a viable embryo were located in the cervico-isthmic region



Figure 2: Color Doppler ultrasonographic showed distance between the gestational sac and bladder wall was too shortene

patient had an uneventful post-operative stage. She is well 1 year after these events.

Although rare, the possibility of subsequent cervico-isthmic pregnancy should be considered following previous cesarean section. This abnormal implantation may result in uterine rupture and significant maternal morbidity with loss of future fertility. The rupture may occur early in pregnancy and a delay in diagnosis potentially limits conservative treatment options.

Because of the rarity of the condition, the optimal management has not yet been established. While some have proposed a variety of surgical and non-surgical interventions in order to terminate cervico-isthmic pregnancy, others recommend conservative management to preserve the pregnancy.^[2] Reports of successful cervico-isthmic

pregnancies leading to delivery of healthy neonates at term are present in the literature.^[3,4] Laparoscopic removal and intramuscular methotrexate have been proposed as methods of pregnancy termination.^[5,6] Methotrexate is most successful at early gestational ages.^[7]

**Azar Danesh Shahraki, Behnaz Khani,
Fereshteh Mohammadizadeh¹, Leila Hashemi**

Department of Obstetrics and Gynecology, ¹Department of Pathology,
School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

Address for correspondence: Prof. Azar Danesh Shahraki,
Department of Obstetrics and Gynecology, School of Medicine,
Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: danesh@med.mui.ac.ir

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