

Ectopic Pregnancy in the Cervix-A Case Report with Review of Literature

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Abstract: Cervical ectopic pregnancy is a rare type of ectopic pregnancy with an evidence of less than 0.1% of all ectopic pregnancies. It is associated with high morbidity and mortality and may lead to massive hemorrhage, which may require hysterectomy to save the patient. We report a case of ectopic pregnancy in cervix in a 27-year-old female patient with a previous history of lower segment caesarean section (LSCS). The current pregnancy was complicated with a massive hemorrhage, hence leading to hysterectomy.

Keywords: Cervical ectopic pregnancy, hysterectomy, massive bleeding

1. Introduction

Cervical ectopic pregnancy is the implantation of blastocyst in the intracervical canal. Cervical ectopic pregnancy is extremely rare and accounts for less than 1% of all ectopic pregnancies (1). It is associated with high morbidity and mortality if it is not treated correctly. We present a case of ectopic pregnancy in the cervix who presented with massive bleeding and underwent hysterectomy.

2. Case Report

A 27 year old female patient presented with 10 weeks of amenorrhea and Per vaginal (PV) bleeding on and off since one month. She was second gravida with history of LSCS during previous delivery. Recently, there was massive PV bleeding without abdominal cramps since two days. Ultrasonography revealed a single irregular gestational sac in the cervical canal. A single fetal pole with cardiac activity was noted. Features were suggestive of cervical ectopic pregnancy (Figure 1). Patient underwent emergency hysterectomy because of massive bleeding per vagina and the specimen was sent for histopathological examination. Gross examination revealed specimen of uterus with cervix measuring 11×5×4 cm. External surface was unremarkable. On cut section, endometrial Canal was 6 cm in length with endometrial thickness of 0.7 cm. Endometrial cavity was unremarkable. Cervical canal was 3 cm in length and was obliterated by grey white to grey brown friable tissue mass measuring 1.5 x 0.5 x 0.3 cm, which was seen below the internal os. (Fig2.) Microscope reveals chorionic villi and decidua attached to endocervical tissue which confirmed cervical ectopic pregnancy. Sections from endometrium reveal Arias-Stella reaction and no evidence of products of conception. Thus, the case was diagnosed as cervical ectopic pregnancy. (fig.3)

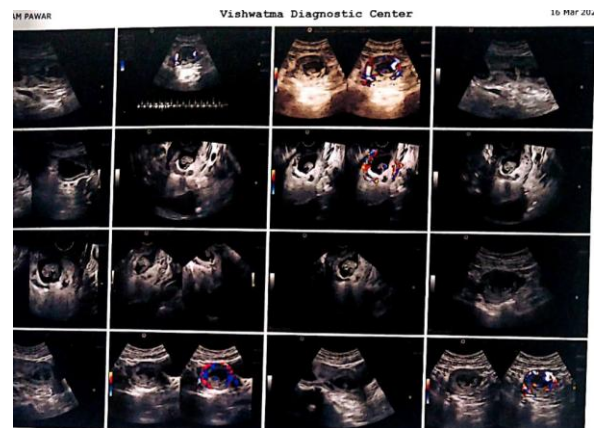


Figure 1



Figure 2

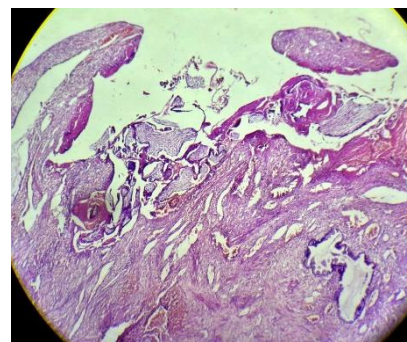


Figure 3

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3. Discussion

Cervical ectopic pregnancy was first published in 1978 by Raskin (1). Any compromise in the capacity of the uterine cavity that prevents implantation in the endometrium could be a contributing factor [2]. The major risk factors include in vitro fertilization, endometrial injury caused by pelvic inflammatory disease or postsurgical trauma such as cesarean section or uterine curettage, history of abortions, intrauterine device use, and structural uterine anomalies (3). In our case, the risk factor seemed to be LSCS. The most common symptom is vaginal bleeding followed by a period of amenorrhea and urinary problems in cases of advanced pregnancies (4). At times, massive bleeding can occur which may require emergency hysterectomy to save the patient as seen in our case. Paalman and Mcelein in 1959 proposed five clinical criteria for diagnosis of cervical ectopic pregnancy which include

- 1) Uterine Bleeding without cramping pain following period of amenorrhea.
- 2) Soft enlarged cervix.
- 3) Product of conception entirely confined and firmly attach with endocervix.
- 4) Closed internal cervical os.
- 5) Partially opened external cervical os (5).

Most of these criteria's were seen in our case. Differential diagnosis of cervical ectopic pregnancy include aborting intra uterine pregnancy residing in cervix which can be differentiated by sliding sign on trans vaginal USG which was suggested by Jurkovic et al. in 1966 (6). Larger or globular uterus in uterine pregnancy compared to hourglass configuration in cervical pregnancy is helpful for definitive diagnosis. As a consequence of the rarity of the condition, therapeutic approaches are still mainly based on case series studies [7]. The therapeutic protocols for cervical ectopic pregnancy have not yet been standardized, although there are general recommendations [8]. The treatment method should be based on the patient's desire to preserve fertility, hemodynamic state, and gestational age, taking into account initial serum hCG level, crown-rump length, and the presence or absence of fetal heartbeat [9]. For hemodynamically stable patient, a conservative treatment like systemic or local methotrexate injection is suggested (10, 11, 12, 13). For uncontrolled bleeding, cervical cerclage, balloon tamponade, angiographic embolization, uterine artery ligation or hysterectomy may be needed (14).

4. Conclusion

Cervical ectopic pregnancy is a rare condition and can be life threatening. Early diagnosis and intervention is necessary in preserving patient's fertility without significant complications.

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