Acta Scientific Women's Health (ISSN: 2582-3205)

Volume 6 Issue 12 December 2024

Case Report

Early Pregnancy with Advanced Cervical Cancer : A Case Report on Recurrent Presentation as Threatened Miscarriage

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DOI: 10.31080/ASWH.2024.06.0639

Received: November 05, 2024

Published: November 14, 2024

Abstract

Introduction: Cervical cancer is the most common cancer in pregnancy. Delayed diagnosis of cervical cancer could be due to symptomatic similarities with various pregnancy-related complications. Cases are typically diagnosed early in countries where routine prenatal and cervical screening are implemented. Treatment should be individualized, depending on the stage of cancer, the woman's desire to continue the pregnancy, and the risks of modifying or delaying therapy during pregnancy [1].

The reported patient is 36–year–old multigravida with a history of leucorrhoea six months before pregnancy, which was not adequately evaluated and treated. She presented with recurrent early pregnancy bleeding, which was diagnosed as a threatened miscarriage and treated with progesterone. At 14 weeks, she experienced heavy bleeding, and a speculum examination revealed a cervical mass. A biopsy confirmed cervical cancer, with a positive result for high-risk HPV 16. She had a spontaneous miscarriage at 16 weeks, with heavy bleeding during expulsion and was subsequently referred to an oncology center for further treatment. This case report highlights a case of recurrent bleeding in early pregnancy, leading to the diagnosis of cervical cancer.

Conclusion: Recurrent bleeding in early pregnancy can be misdiagnosed as a threatened miscarriage, delaying the detection of cervical cancer. Early and regular cervical screening, particularly in high-risk populations, is essential for timely diagnosis. Specialized multidisciplinary care is critical for managing such cases to optimize maternal and fetal outcomes.

Keywords: Cervical Cancer; Pregnancy; Threatened Miscarriage; Trans Vaginal Ultrasound; Human Papilloma Virus

Introduction

Cervical cancer is one of the most common malignancies in pregnancy, with an estimated incidence of 0.8 to 1.5 cases per 10,000 births. The reported incidence is 1-3% in pregnancy [2,3]. Approximately half of these cases are diagnosed antenatally, and the other half are diagnosed post-delivery within one year [4]. Delayed diagnosis of cervical cancer could be due to overlap with symptoms of pregnancy. In counties where routine prenatal and cervical screening programs are implemented, cervical cancer is usually diagnosed early [5,6]. The stage for stage, the course of the disease, and the prognosis of cervical cancer in pregnant patients are similar to those of non pregnant patients [6]. There is a lack of large randomized trials to base recommendations for managing cervical cancer in pregnancy, so treatment is based on evidence from studies in non pregnant women, observational data from pregnant women, and case specific medical and ethical considerations [1].

Cervical cancer is often suspected when a screening test, such as cervical smear test test reveals abnormalities [7]. There are few studies comparing cervical smear test results in pregnant and non-pregnant women [8]. The incidence of significant cytological abnormalities among obstetrical patients is reported to be 5 to 8 percent, similar to the nonpregnant population [2,9].

Symptoms and signs of cervical carcinoma in pregnancy vary depending on the clinical stage and lesion size. In two studies, all pregnant patients with stage IA cervical cancer and 50% of those with stage IB carcinoma were asymptomatic at diagnosis, with disease detected through routine cancer screening [7,10]. Symptomatic stage IB patients typically present with abnormal vaginal bleeding or discharge, while more advanced disease may present with pelvic pain, sciatica-type leg pain, flank pain, chronic anemia, and shortness of breath. Because many of these symptoms overlap with those of a normal pregnancy, cervical cancer diagnosis may be delayed in pregnant women.

A gross cervical lesion may be observed or palpated at any gestational age, but physical examination may be limited by pregnancy-related changes such as ectropion, stromal edema, and cervical ripening. Additionally, normal decidual reactions in the cervix can resemble carcinoma.

Narrative

36 - year-old Pakistani woman, Gravida 6 Para 4 Living 4 +1. The patient had previous full-term vaginal deliveries resulting in 4 live children. The last child was born three years ago. The previous miscarriage was spontaneous a year ago at 14 weeks, which was medically managed with PGE1 for incomplete miscarriage. She had no significant past medical or surgical history. Her cycles were regular every 28 days with five days of average flow. No history of post-coital and intermenstrual bleeding. She had leucorrhea for 6-8 months before the current pregnancy; however, once she consulted her physician and received treatment with imidazole suppository. She had never been screened for cervical cancer. She has no significant family history of malignancy.

The current pregnancy patient presented to the emergency room for the first time at eight weeks with bleeding per vaginum, which was heavy but not associated with abdominal pain. Her vitals were stable, and her abdomen was soft and non-tender on palpation. The local examination showed a ballooned-out bulky cervix, and heavy bleeding obscured proper visualization of the cervix. Bedside ultrasound showed a viable fetus measuring corresponding growth of 8 weeks + 3 days, with no subchorionic hematoma. The patient was admitted, suspecting impending miscarriage, and treated with progesterone. Later, the bleeding settled, and she was discharged on oral progesterone. Her second episode of bleeding at nine weeks was mild, and she was advised to continue with oral dydrogesterone. She had a Dating scan at 13 weeks, which corresponded to the period of gestation, normal NT, and a small suspected hemorrhagic cyst around 4x 3 cm was noted in the pelvic area. After a few days of NT scan at 14 weeks, she presented with another episode of bleeding p/v. She was very anxious, and a speculum examination was only agreed upon after admission with thorough counseling due to ongoing bouts of bleeding.

On examination, the patient appeared slightly pale. No abnormality was detected on the general and systemic examination. The uterus was 14 weeks in size with no tenderness or guarding in the abdomen. External genitalia were normal, with trickling of fresh blood being observed. Visualization of the cervix revealed a friable exophytic mass, around 4 cm in the anterior lip of the cervix, bleeding on touch, and firm in consistency. The vagina and the fornices were normal. Rectovaginal examination revealed no involvement of the perineum, vulva, or anorectal area. Inguinal lymph nodes were not palpable. A pap smear was taken and sent.

Pelvic ultrasound revealed a single viable fetus at 14 weeks + 3 days and an upper anterior placenta. The TVS showed a long cervix. The anterior cervix has a vascular mass of 5.8 x 4.4 cm, compressing the cervical canal. Cervical length was 4.7 cm. The posterior lip of the cervix looks normal.

Findings of examination under anesthesia -Uterus 14 week's size, cervix was closed with a firm mass in the anterior lip. Mass was bleeding on touch, 4x5 cm in size, in the anterior lip and cervical canal. The posterior lip of the cervix looks normal. Vaginal fornices were free. A cervical biopsy was taken and sent for histopathological examination.

Cervical smear report showed High Grade Squamous Intraepithelial Lesion (HSIL) and cervical biopsy confirmed Squamous Cell Carcinoma-Poorly Differentiated Non-Keratinizing. HPV -16 was isolated from the sample.

She was discharged and referred to oncology services for further treatment and staging. However, while awaiting an appointment at 16 weeks, she presented with heavy vaginal bleeding and fainting episodes at home. Hemoglobin dropped from 11g/dl to 8.5g/dl. She aborted the fetus and misoprostol was received for incomplete miscarriage. The patient received 1 unit of blood during the hospital stay for anemia correction.

Patient underwent Examination under Anesthesia in the oncology center –Ectocervix seen intact, anterior lip longer than posterior lip. Mass is involving whole cervix more on anterior lip around 6x5cm size. Fornices are free. Per rectal examination-right parametrial involvement, not reaching pelvic side wall bilaterally. Cystoscopy-Both ureteric orifices seen, bladder mucosa normal and uniform.

MRI with contrast - Cervical lesion of size 3.5cmx 4.4 cmx 4.6cm. Parametrium-ill definition of the right anterolateral border of the lesion, suggestive of parametrial lesion. Extra cervical invasion-No definite involvement of the vaginal walls, bladder or rectum identified. Local tumor extent (TNM: T2bcorresponds to FIGO IIB1. Pelvic lymph nodes-suspicious external iliac and obturator lymph nodes, no suspicious bony lesions.

She was diagnosed with FIGO stage IIB1 cervical cancer and received chemoradiation. She is on three monthly follow-ups with the oncology center and doing well.

Discussion

Delayed diagnosis is common when pregnancy-related symptoms (like bleeding) obscure the presence of cervical cancer. Routine screening (e.g., cervical smear) could have identified precancerous lesions or early-stage cancer, potentially improving outcomes.

Lack of awareness about national screening programs & vaccines, and not being able to afford them are two main reasons for missing cervical cancer at an early stage. The reported patient was presented to emergency room multiple times with abnormal uterine bleeding, but was diagnosed as threatened miscarriage and the ultrasound did not pick up cervical growth. Even her complaints of leucorrhea or vaginal discharge for a year skipped evaluation in another facility. Her previous miscarriage at 14 weeks could have been an ideal time to counsel her about the need for cervical screening and HPV vaccination. Diagnosing local causes of bleeding during pregnancy like cervical polyps, cervical cancer and ectropion were overlooked at multiple visits.

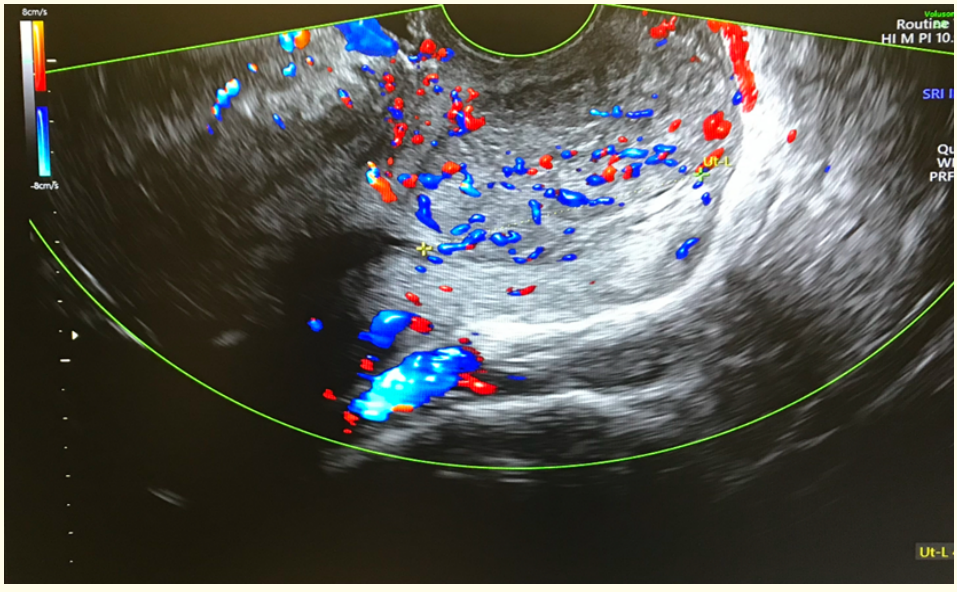
When this patient was admitted for the third time at 14 weeks gestation with heavy bleeding in early pregnancy, the large mass on the speculum implied that tumor growth had started well before the pregnancy. Given the long natural history of cervical cancer, regular screening could have helped detect such cases at the pre cancer or early cancer stages.

Complications of locally advanced cervical cancer include spontaneous abortion with the risk of severe obstetrical complications, such as heavy cervical bleeding, rupture of the cervix, infections, and disseminated intravascular coagulopathy [11,12]. Emergency surgical interventions may be required due to the risk of severe hemorrhage, and hysterectomy may be necessary in some cases.

Moreover, planning for an elective termination could be quite challenging due to difficult vaginal access caused by the tumour, thereby necessitating abdominal delivery. Hysterotomy is recommended to avoid uncontrollable bleeding from dilatation of a diseased cervix and the possible cervical perforation or dissemination of the disease through lymphatic and vascular channels [11]. There is the possibility of intractable bleeding during and after surgery. The abdominal approach implied a delay in radiotherapy until the abdominal scar healed.

This patient did not face the above challenges of managing locally advanced cervical cancer detected early in pregnancy due to her spontaneous miscarriage at 16 weeks.

The case also highlighted the challenges in managing cervical cancer during pregnancy, including the psychological burden on the patient and complications that may arise from the pregnancy itself [13]. The need for better awareness and access to cervical cancer screening programs is emphasized.



Picture 1: Transvaginal ultrasound picture of cervix showing normal cervical length, and vascular mass in the anterior lip of cervix.

Picture 2: Speculum examination showing bulky anterior lip of cervix with mass.

Conclusion

Cervical cancer in young pregnant patients is a dire situation that can endanger both the patient and the fetus. Patient fertility is also affected. These patients must be treated with exceptional care in specialized centers, where a multidisciplinary team can offer them the most efficient therapeutic strategies.

The current case demonstrated enormous challenges affecting patients and gynecologists in cancer that was diagnosed during pregnancy. Recurrent bleeding in early pregnancy with a viable baby and closed cervix prompts the diagnosis of early pregnancy complications like threatened miscarriage. Usual complications of early pregnancy can misdirect the clinician from diagnosing the cancer at an early stage. The availability of bedside ultrasound is

beneficial in excluding the differential diagnosis of bleeding in early pregnancy; however, excluding local causes by history and speculum examination is necessary. Challenges in the health system in national screening programs should be addressed, and clinicians should make use of every visit to offer screening for cervical cancer in the appropriate age groups.

Conflict of Interest

Nil.

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