Case Report

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Unattended uterine prolapse during pregnancy in a low-income setting: a case report

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Introduction: Uterine prolapse (UP) is rare during pregnancy. It sometimes leads to serious complications such as abortion, preterm labor, and maternal death. The main risk factor for UP is previous vaginal childbirth and is usually managed conservatively. However, surgery should be considered in cases of unavailability or failure of conservative approaches.

Case presentation: A 34-year-old Gravid4Para3 pregnant woman in the 33rd week of gestation presented with refractory vaginal pain. She had a remarkable history of second-degree UP. Upon presentation, the anterior and posterior cervical lips were swollen, bluish, and protruding through the vagina. Considering the severe pain, the alarming examination findings, and the impossibility of pushing back the protruding mass, a total vaginal hysterectomy was performed. The postoperative pathological study revealed a massive hemorrhage with edematous changes in the vaginal cuff and cervical mucosa in addition to features of placenta accreta, placenta previa, and placenta abruption.

Conclusions: UP is a rare but potentially serious condition, especially if it is related to pregnancy. Moreover, managing UP could be challenging in low-income settings, where even simple conservative methods might be unavailable or financially unattainable.

Keywords: case report, hysterectomy, pregnancy, uterine prolapse, vaginal pessary

Introduction

Slipping of the uterus or any other pelvic organ down the vaginal canal, known as pelvic organ prolapse (POP), is a widespread and serious health issue affecting as far as half the women who have given birth. Uterine prolapse (UP), in particular, presents mainly after menopause, and it is rarely seen during pregnancy. Only one case out of 13 000 was recorded in 1941[1,2].

Slipping of the uterus down the vaginal canal, known as uterine prolapse (UP), is a rare and serious gynecological issue that presents mainly after menopause, and it is rarely seen during pregnancy. Only one case out of 13 000 was recorded in 1941[1,2]. UP during pregnancy is usually seen before the fourth month of gestation[2]

UP in pregnant women can result from a pre-existing prolapse or may develop for the first time during pregnancy. The etiology differs between the two cases. The first one is more likely to be caused by pelvic floor problems, such as trauma or congenital disorders. On the other hand, physiological factors are responsible for the second case[3].

HIGHLIGHTS

- Uterine prolapse (UP) is a rare entity during pregnancy.
- UP in pregnant women poses a threat to the woman's reproductive health and fetal life, especially if it is not taken care of.
- UP during pregnancy is usually managed conservatively. However, conservative methods might be difficult to obtain in low-income settings.

Generally speaking, the leading risk factor for UP is vaginal childbirth. Other risk factors include a large number of children, the patient's age, BMI, high intra-abdominal pressure (e.g. chronic pulmonary disease), and collagen disorders (e.g. Ehlers–Danlos and Marfan's syndromes)[4].

There are many ways in which UP can present, ranging from discomfort sensation, cervical desiccation and ulceration, urinary tract infection, and acute urinary retention to the more critical complications such as abortion, preterm labor, and even maternal death, all of which should be taken into account when planning a management method[4,5].

Current recommendations to manage UP focus typically on conservative methods. However, surgery should be considered in cases of failure of conservative approaches[4,6].

Herein, we report the case of a pregnant woman with a complicated second-degree UP, which was managed surgically. This report aims to highlight such a unique entity, especially in Syria, where even simple conservative modes of therapy could be challenging.

This case report has been reported in accordance with the SCARE (CAse REport) 2020 criteria[7]

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Case Presentation

A 34-year-old Gravid4Para3 pregnant woman presented at the emergency department of our hospital with refractory vaginal pain that had been increasing in severity over the last 4 days. The patient was at the 33rd week of gestation based on the last menstrual cycle date. She is a heavy smoker (10 pack-year). Her antenatal care was poor. No prior vaginal examination was done during this pregnancy.

Previous pregnancies were delivered vaginally. Babies' birth weights ranged from 2500 to 3000 g. During the last pregnancy, a year and a half ago, the patient complained of urinary incontinence that led to the diagnosis of UP. It was managed conservatively with physical exercises, as pessary was unavailable, and a healthy baby was delivered successfully. Since then, the prolapse had been left untreated and had become a second-degree UP. Otherwise, she had unremarkable medical, surgical, drug, and family history. Moreover, she denied having chronic constipation or cough.

Upon presentation, the anterior and posterior cervical lips were protruding through the vagina. They were swollen and bluish in color (Fig. 1).

Over the last 4 weeks, the patient received six dexamethasone injections for fetal lung maturity. Intravenous antibiotics were given for 4 days, too.

Considering the severe pain, the alarming examination findings, and the impossibility of pushing back the protruding mass, we decided to terminate the pregnancy. A total vaginal hysterectomy was performed (Fig. 2).

An unwell infant was delivered with Apgar scores of 5 and 6 in the first and fifth minutes, respectively. However, unfortunately, the baby died due to prematurity complications.

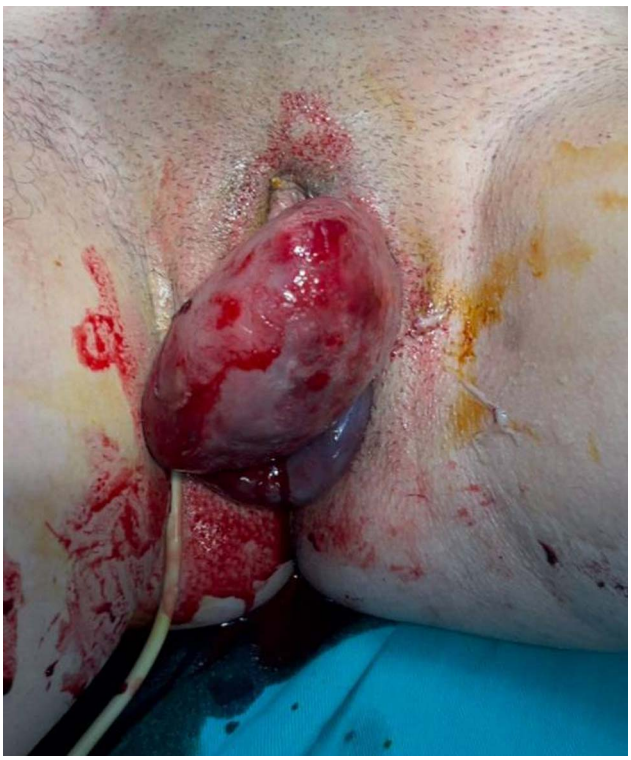

Figure 1. The swollen and bluish cervical lips protruding through the vagina.

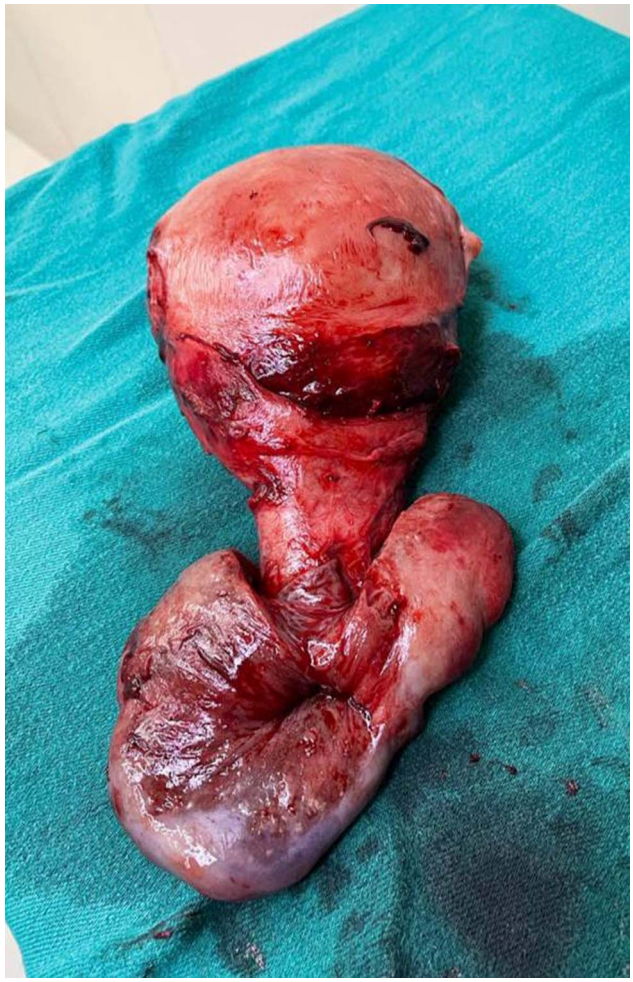

Figure 2. Uterus after vaginal hysterectomy.

The postoperative pathological study revealed a massive hemorrhage with edematous changes in the vaginal cuff and cervical mucosa in addition to features of placenta accreta, placenta previa, and placenta abruption.

The patient was hospitalized for one day. Intravenous antibiotics were administered for 24 h and continued orally for 10 days. In general, she was satisfied with the results.

Discussion

UP in pregnancy is a rare condition. It most commonly develops during pregnancy, where it is often noticed in the third trimester. However, it might exist before pregnancy. Then, it is usually self-resolved by the end of the second trimester but continues to occur again after delivery[8,9].

In UP, the cervix is both edematous and protruding, which is the root cause of its many complications. At antepartum hemorrhage, abortion and preterm labor are the major complications, especially for women who already have UP before pregnancy. Prolonged obstructive labor, or dystocia, seems to be the main complication at intrapartum, while maternal and fetal death is rare. At postpartum, both puerperal infection and

prematurity are critical issues that could lead to maternal and fetal death[4]. In rare cases, UP might also cause infertility[10].

In our case, the patient had a UP that developed during a previous pregnancy and continued to exist and complicate the current one. She was admitted to the hospital because of severe vaginal pain and the feeling of a protruding mass. The mass was swollen and did not move back into place, and so was the pain that did not resolve conservatively. Consequently, the pregnancy had to be terminated at the 33rd week of gestation resulting in a premature baby that eventually died due to prematurity complications.

The pathological inspection of the mass also revealed placenta accreta, placenta previa, and placenta abruption. The presence of aberrant and abnormal adhesions of the placenta to the myometrium may also be engaged in complications regarding the mother and her fetus associated with the current cases[11].

The management methods of the UP vary depending on the patient's specifications, keeping the wide range of complications in mind[8].

Conservative options, including bed rest in a moderately Trendelenburg position, good genital hygiene, and the continuous use of a pessary during the entire antepartum, are proven to be sufficient in some cases[2,4]. The prolonged use of a pessary is sometimes correlated with vaginal discharge, odor, mucosal erosion and abrasions of the vagina, and urinary retention[12].

However, surgery must be considered if conservative solutions fail to resolve the UP. Laparoscopy is the operation of choice in that case. Nevertheless, failure of some laparoscopic uterine suspension cases was reported. Therefore, it is a delicate procedure that should be only performed by experienced surgeons[4,6,13].

Selective cesarean section can also be done, depending on the patient's preferences, the status of the uterus and cervix, and the labor's advancement. Pelvic floor ultrasound is recommended for follow-up[14].

Although a pessary is easily accessible worldwide[10], this is not the situation in Syria. Furthermore, laparoscopy is still an unpopular procedure due to financial restraints. Add to that the devastating effects of the Syrian war on the quality of antenatal care. Thus, you are left with finite options for management. In our case, the medical staff had no choice besides performing a cesarean section followed by a total vaginal hysterectomy.

In conclusion, UP is an uncommon condition during pregnancy. Even though it sometimes causes only minor disturbances to the mother, it should be taken care of promptly to avoid significant complications. This report is aimed to highlight the seriousness of this entity in pregnant women, especially in a low-resource setting.

Ethical approval

This is a case report; therefore, it did not require ethical approval from the ethics committee.

Consent

Written informed consent was obtained from the patient for the publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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Author contribution

W.T.: participated in the surgical procedure and wrote the case presentation; K.Z.: reviewed the literature review and participated in writing the introduction, discussion, and conclusion sections; F.N.: participated in writing the abstract, introduction, and discussion sections; B.K.: led the surgical procedure and supervised the writing of the manuscript, scientifically and academically. All authors have reviewed and approved the final manuscript.

Conflicts of interest disclosure

There are no conflicts of interest.

Research registration unique identifying number (UIN)

This is a case report; therefore, it did not require a research registration.

Guarantor

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Provenance and peer review

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Data availability statement

All data are included in this article and its online supplementary material. Further inquiries can be directed to the corresponding author.

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References

[1] Keettel WC. Prolapse of the uterus during pregnancy. Am J Obstet Gynecol 1941;42:121–6.
[2] Daskalakis G, Lymberopoulos E, Anastasakis E, *et al*. Uterine prolapse complicating pregnancy. Arch Gynecol Obstet 2007;276:391–2.
[3] O'Boyle AL, O'Boyle JD, Calhoun B, *et al*. Pelvic organ support in pregnancy and postpartum. Int Urogynecol J 2005;16:69–72.
[4] Tsikouras P, Dafopoulos A, Vrachnis N, *et al*. Uterine prolapse in pregnancy: risk factors, complications and management. J Matern Fet Neonat Med 2014;27:297–302.
[5] Hill PS. Uterine prolapse complicating pregnancy. A case report. J Reprod Med 1984;29:631–3.
[6] Yildiz MS, Ekmekci E. A laparoscopic procedure for the treatment of uterine prolapse during pregnancy: a case series. Eur J Obstet Gynecol Reprod Biol 2019;242:33–5.

[7] Agha RA, Franchi T, Sohrabi C, *et al*. The SCARE 2020 guideline: updating consensus surgical CAse REport (SCARE) guidelines. Int J Surg 2020;84:226–30.
[8] Guariglia L, Carducci B, Botta A, *et al*. Uterine prolapse in pregnancy. Gynecol Obstet Invest 2005;60:192–4.
[9] Horowitz ER, Yogev Y, Hod M, *et al*. Prolapse and elongation of the cervix during pregnancy. Int J Gynaecol Obstet 2002;77:147–8.
[10] Speroff L, Fritz MA. Clinical Gynecologic Endocrinology and Infertility. Lippincott Williams & Wilkins; 2005.
[11] Hegazy A. Clinical Embryology for Medical Students and Postgraduate Doctors. Lap Lambert Academic Publishing; 2014.
[12] Sulak PJ. Nonsurgical correction of defects, the use of vaginal support devices. 8th edition. Te Linde's Operative Gynecology; Lippincott-Raven 1997. pp. 1082–3.
[13] Matsumoto T, Nishi M, Yokota M, *et al*. Laparoscopic treatment of uterine prolapse during pregnancy. Obstet Gynecol 1999;93:849.
[14] Zeng C, Yang F, Wu C, *et al*. Uterine prolapse in pregnancy: two cases report and literature review. Case Rep Obstet Gynecol 2018;2018:1805153.