Repeated term pregnancies in a young patient with pelvic organ prolapse

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Summary

Pregnancy complicated with pelvic organ prolapse is a rare event; pregnancy in a patient with prolapse existing before the pregnancy is even less common. The authors report two consecutive term pregnancies in a young woman with pelvic organ prolapse. A 24-year-old pregnant woman, gravida 4, para 3, was admitted to the hospital at 38 2/7 weeks gestation with uterine contractions and severe cervical prolapse. She was conservatively treated during the antenatal period. On admission, an edematous and gangrenous totally prolapsed cervix was seen protruding outside the introitus and cesarean section was then performed. A healthy female infant with a birth weight of 2,920 g was delivered. On postpartum second day examination, uterine cervix was reduced. Stage 2 pelvic organ prolapse quantification system (POPQ) was observed during the follow-up examination at sixth weeks postpartum. Conservative approach during pregnancy followed by cesarean section may be the appropriate management in these cases.

Key words: Prolapse; Pregnancy; Management; Preexisting.

Introduction

Pelvic organ prolapse during pregnancy is an extremely rare event with a reported incidence of one in 10,000 to 15,000 deliveries in the United States [1]. There were only five cases reported from 1968 to 2005; the authors described rare and extensive prolapses with elongation of the cervix during pregnancy [2]. Pregnancy in a patient with prolapse existing before the pregnancy is even less common with four cases reported from 1980 to 2010 [3-6] and four additional cases from 2010 to 2011 [7-10].

Pregnancy with uterine prolapse rarely extends to term carrying the risks of cervical desiccation and ulceration, urinary retention, cervical dystocia, preterm labor, spontaneous abortion, fetal demise, maternal sepsis, and death [11, 12]. Treatment options are limited with conservative methods during antenatal period. Management during labor varies considerably.

The authors report a case of two consecutive term pregnancies with preexisting pelvic organ prolapse and a review of the literature.

Case Report

A 24-year-old pregnant woman, gravida 4, para 3, was admitted to the tertiary care hospital at 38 2/7 weeks gestation with uterine contractions and severe uterine prolapse. The patient's past medical and surgical history was unremarkable. Her two previous pregnancies resulted with preterm vaginal deliveries six and four years ago. The weights of newborns were 2,500 and 2,000 g respectively. She had no history of prolapse during these two prior pregnancies. However, she reported that the cervix had protruded outside the vaginal introitus after the second delivery. Her third pregnancy ended with spontaneous vaginal delivery of a term infant of 3,500 g three years ago. The cervix had been reduced manually at the sixth month of that pregnancy. The patient took antenatal care in another center during this pregnancy and stated that prolapse recurred at the seventh month. The patient was conservatively treated with manual reduction, bed rest, and followed on an outpatient basis. She told that she had felt the mass and seen that it was protruded in the lower vagina on the morning of the day she was admitted to the hospital. On admission, an edematous, incarcerated, and totally prolapsed cervix was seen protruding outside the introitus (Figure 1). Ultrasonographic examination showed a single, live fetus with an estimated fetal weight of 3,000 g. The cardiotocography revealed regular uterine contractions with normal fetal heart rate pattern. As the gangrenous and necrotic appearance of the cervix revealed that its circulation was compromised, in order to avoid potential risk of cervical laceration and dystocia, delivery by cesarean section was decided. A healthy female infant with a birth weight of 2,920 g was delivered with Apgar scores of 7 and 9 at the first and fifth minutes, respectively. The patient requested sterilization. Tubal sterilization was performed during cesarean section with the informed consent given by the patient. On postpartum second day examination, a reduced and healing uterine cervix was observed. The postoperative period was uncomplicated and the patient was discharged on postoperative day two. Stage 2 pelvic organ prolapse quantification system (POPQ) was observed on the follow-up examination at sixth week postpartum.

Discussion

This report summarizes a case of pelvic organ prolapse while complicating two pregnancies of a young patient. Pelvic organ prolapse is considered to be a multifactorial condition in which both congenital and acquired factors are blamed. Congenital weakness in the fascial supports as well as multiparity, previous macrosomic births, operative delivery, and large uterine or ovarian tumors resulting in increased intra-abdominal pressure are among the most common risk factors [12]. Childbirth trauma is the first cause of most reported cases of uterine prolapse and pregnancy during the reproductive years. In addition, the

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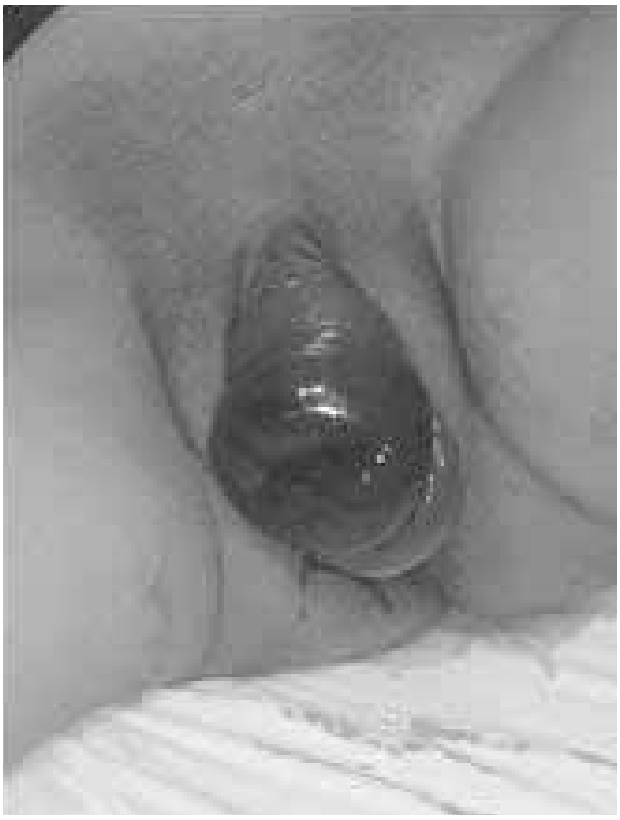

Figure 1. — Pelvic organ prolapse in the term pregnancy with an edematous and gangrenous cervix.

physiologic changes of pregnancy, in terms of cervical elongation and hypertrophy, may also be contributing factors for uterine prolapse [13].

During pregnancy, prolapse is usually first noted in the third trimester [14] and disappears after labor and delivery [13]. However, spontaneous resolution will usually occur by the end of the second trimester without further complications but persists or recurs after delivery in cases where prolapse existed before the onset of pregnancy [9, 12]. However, in the previous two reports, prolapse persisted during the entire pregnancy [3, 5], and in one case the prolapse was resolved at the 30th week of pregnancy [7]. In the presented case, the prolapse seemed to persist during pregnancy and increased gradually. The condition became extensive and was then manually reduced at the seventh month of pregnancy. Insertion of a pessary to protect the prolapsed cervix may be attempted although it may fall out a few days later [6]. Thus, treatment options are limited with conservative methods, such as genital hygiene and bed rest, in a slight Trendelenburg position during the antenatal period [12]. A laparoscopic approach of uterine suspension was also reported as an alternative solution where the conservative precautions failed [15].

Resistance to cervical dilatation, cervical dystocia due to edema, cervical laceration, and obstructive labor with an incidental risk of rupture of the lower uterine segment have been reported as intrapartum complications [13]. Although operative vaginal delivery by forceps application or Dühressen cervical incisions may be attempted, continued stretching of the lower segment to the point of uterine rupture due to cervical dystocia has been reported [1, 5]. Another complication may be primary postpartum bleeding due to uterine atony [16]. In order to avoid such complications, an elective cesarean section near term seems to be the safest mode of delivery in cases with edematous and elongated cervix [17]. In the presented case, as the gangrenous and necrotic appearance of the cervix revealed that its circulation was compromised, in order to avoid potential risk of dystocia and cervical laceration, delivery by cesarean section was decided.

Cesarean hysterectomy with suspension operation may be a radical approach especially for women who completed their family [5]. However, this patient was young and desired to have her uterus preserved. Furthermore, the prolapse could be reversible and hysteropexy operation would be unsuccessful when the uterus returned to pelvis minor within a few weeks after the delivery [16]. In case of pelvic organ prolapse, vaginal procedures are considered as the primary ones for pelvic reconstructive surgery.

In conclusion, the authors wanted to add this case to the limited ones in the literature to review this rare entity and to help the obstetricians to be familiar with management of these cases. Close follow-up with conservative precautions is recommended during the antenatal period. Cesarean section seems to be the safest way of delivery. However, management should be individualized according to the age of the patient, gestational week, severity of the condition, and patient's preference.

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