
Obstetric outcome of a primigravida with a uterine didelphys, a 20 cm fibroid, and a vaginal septum

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Background: Müllerian anomalies, like a uterine didelphys (UD) and vaginal septae, are at increased risk for adverse pregnancy outcomes. Some obstetrical complications include spontaneous abortion, bleeding, fetal malpresentation, and cesarean delivery. Surgical treatment is rarely performed in UD.

Uterine fibroids in pregnancy are frequent and pain is the most common symptom. Fibroids in pregnancy are associated with an increased risk of spontaneous abortions, preterm labor and delivery, malpresentation, and placental abruption. Myomectomy is avoided during pregnancy and at delivery, due to the risk of hemorrhage. Acetaminophen is the treatment of choice.

Case: A 31-year-old female, gravida 1 para 0 with an intrauterine pregnancy (IUP), a 20 cm fibroid, a uterine didelphys (UD), and a longitudinal vaginal septum, was followed for pain caused by degeneration of the 20 cm fibroid. At term, she underwent labor induction due to oligohydramnios and delivered a healthy infant via vaginal delivery. A vaginal septoplasty was performed due to a partial tear of the septum. Estimated blood loss was 800 ml, and she received 2 units of PRBCs. She was discharged home on postpartum day 2. Her postpartum recovery was complicated with endometritis which was treated with methergine and antibiotics.

Conclusion: Few pregnancies with both UD and fibroids have been described. Many result in a cesarean delivery due to the inability for fetal head descent. The literature search did not find another successful vaginal delivery of an IUP with a uterine didelphys, a large fibroid, and a vaginal septum.

The patient is a 31 year old African-American female, gravida 1, who established care at University of South Alabama (USA) OBGYN after transferring from Texas, with an intrauterine pregnancy (IUP) at 17+ week, confirmed by last menstrual period and consistent with an 8 week ultrasound (US). It was known she had a large fibroid. On exam was found to have a fundal height greater than dates and a longitudinal vaginal septum with two cervixes. An US performed at USA OBGYN revealed a uterine didelphys (UD) with an IUP in the right uterus and multiple uterine fibroids (UF) on the left uterus, the largest measuring 16.4x11.2x19.9 cm.

Her prenatal course was complicated in the second trimester by severe pain secondary to a degenerating UF. The patient's pain was managed with IV and PO acetaminophen. Maternal Fetal Medicine (MFM) was following her for the UD, the UF, and elevated RPR and positive antiphospholipid antibodies.

The patient was seen by MFM at 38+3 weeks and an US revealed oligohydramnios with an MVP 3.2 cm, and the fetal head appeared to be below the large fibroid. She was sent to labor and delivery for induction of labor secondary to oligohydramnios. The patient progressed to 10 cm

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with adequate descent and a viable male infant was delivered via vaginal delivery, weighing 2810 g, Apgar scores 8-9. A second degree left sidewall laceration was repaired in the usual fashion. The longitudinal vaginal septum was torn from its posterior base, requiring partial resection of the anterior septum, and hemostasis was achieved with one layer of suture. Estimated blood loss was 800 ml, and the patient subsequently received 2 units of PRBCs. She was discharged home on postpartum day 2 in stable condition.

Her postpartum recovery was complicated with endometritis which was treated with methergine and antibiotics. The patient was seen at her 6 week postpartum visit complaining only of occasional abdominal pain, consistent with her degenerative UF. The patient had a follow up appointment with the gynecologic oncologist who felt that because of her desire for future pregnancies, no surgical management of her fibroid or didelphys was indicated.

Discussion

Mullerian anomalies occur in 2- 4 % of women with normal reproductive outcomes. Many uterine anomalies tend to go unrecognized due to often being asymptomatic. Due to this, the true incidence is difficult to determine. The incidence is higher, however, among patients with recurrent spontaneous abortions and preterm delivery [1].

The underlying etiology of congenital müllerian defects is not well understood.

The type and frequency of anomalies are septate uteri (90%), bicornuate uterus (5%), and UD (5%). According to the American Fertility Society, UD is classified in Group III [1-2].

If the anomaly is symptomatic, the patient may experience dysmenorrhea, menstrual abnormalities, hematocolpos, and recurrent miscarriage or preterm delivery.

The case report patient presented with UD, which occurs when the two müllerian ducts fail to fuse, thus producing duplication of the reproductive structures. Generally the duplication is limited to the uterus and cervix. Fifteen to 20 % of women with UD also have unilateral anomalies, such as an obstructed hemivagina and ipsilateral renal agenesis. The anomalies are on the right in 65 percent of cases [2]. Vaginal septums are often associated with the anomaly of UD, as well as with urinary tract abnormalities. The most common urinary abnormality is the absence of a kidney [1, 6, 35].

Obstetrical complications with uterine anomalies include increased risks of spontaneous abortion, prematurity, intrauterine growth restriction, antepartum and postpartum bleeding, cervical incompetence, fetal malpresentation, gestational hypertension, and cesarean delivery [3-8]. Of all uterine anomalies, UD has the best fetal survival rate (57%).

Surgical treatment is rarely performed in UD, by contrast with other anomalies, due to the difficulty of the uteroplasty and the small improvement rate on pregnancy complications.

The patient also presented with a concomitant UF. Uterine fibroids are benign smooth muscle tumors of the uterus. Most pregnant women with UF do not have fibroid-related complications during pregnancy.

The prevalence of UF in pregnancy is between 1.6-10.7% [9-13]. The prevalence is highest in African-American women [12].

It is thought that increases in estrogen and progesterone during pregnancy increase fibroid growth, but most studies have refuted this belief [11,14-20], Fibroid size remains stable (<10% change) in 50-60% of cases, increases in 22-32%, and decreases in 8-27% [14,18,19].

For fibroids that increase in size, most of the growth occurs in the first trimester [14,18,19]. Larger fibroids (>5 cm in diameter) are more likely to grow [11]. The mean increase in fibroid volume during pregnancy is 12 percent [18,19].

Pain is the most common symptom of UF. The frequency of pain correlates with increased fibroid size, and it presents in the late first or early second trimester, corresponding to the period of greatest fibroid growth and degeneration [10,21].

There is an increased risk of spontaneous abortions, premature labor and delivery, malpresentation, and placental abruption in pregnancies with UF [24-29].

Myomectomy is avoided during pregnancy and at delivery, due to the risk of hemorrhage [10, 22, 23, 27].

Acetaminophen is the treatment of choice for UF, and hospitalization for pain management may be required [10,26,30]. Short-term use of opioids in standard doses or a course of nonsteroidal anti-inflammatory drugs (NSAIDs) can be given when pain is not controlled by acetaminophen [22].

Epidural analgesia has been used for severe pain refractory to other oral and/or intravenous medications [31-33].

Most obstetrical patients with UF will have a successful vaginal delivery. Cesarean delivery is reserved for standard obstetrical indications. Elective cesarean delivery may be considered because of concerns that fetal descent will be obstructed [34].

Few cases have been described regarding successful pregnancies in uterus didelphys with fibroids. Although these pregnancies can be delivered vaginally, some result in a cesarean delivery due to the inability for fetal head descent caused by fibroids, the didelphys, and the vaginal septum. The choice for myomectomy, metroplasty, or uterine body resection at the time of cesarean delivery, is not recommended [35]. The literature search performed did not find successful vaginal deliveries of an IUP with a uterine didelphys, a large fibroid, and a vaginal septum, as the case report described.

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