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Case Report

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Complex obstetric triad in low resource settings: Placenta previa, succenturiate placenta, and fibroids with lethal fetal anomalies

Eric Chukwudi Ihekwoaba[1]; George Uchenna Eleje[2,3]*; Adanna Vivian Egwim[2,3]; Gerald Tochukwu Igwemadu[4]; Kenechi Ogbodo Nnamani[5]; Ekeuda Uchenna Nwankwo[6]; Chigozie Geoffrey Okafor[4]; Chukwuemeka Chukwubuikem Okoro[3]; Chukwudubem Chinagorom Onyejiaka[2,3]; Obinna Kenneth Nnabuchi[3]; Chijioke Ogomegbunam Ezeigwe[3]; Charlotte Blanche Oguejiofor[3]; Chukwunwendu Aloysius Okeke[3]; Gerald Okanandu Udigwe[2,3]; Ahizechukwu Chigoziem Eke[7]

[1]Department of Surgery, Nnamdi Azikiwe University, Awka, Nigeria.

[2]Effective Care Research Unit, Department of Obstetrics and Gynaecology, Nnamdi Azikiwe University, Awka, Nigeria.

[3]Department of Obstetrics and Gynaecology, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria.

[4]Department of Obstetrics and Gynaecology, Barking, Havering, and Redbridge, University Hospitals NHS, Romford, London, UK.

[5]Department of Paediatrics, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria.

[6]Rural Community Clinical School, School of Medicine, Deakin University, Victoria, Australia.

[7]Division of Maternal Fetal Medicine, Department of Gynecology and Obstetrics, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.

***Corresponding Author: George Uchenna Eleje**

Effective Care Research Unit, Department of Obstetrics and Gynaecology, Nnamdi Azikiwe University, Awka (Nnewi Campus), P.M.B. 5001, Nnewi, Anambra State, Nigeria.

Tel: +234806811744;

Email: georgel21@yahoo.com; gu.eleje@unizik.edu.ng

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Abstract

Background: Placenta succenturiata, placenta previa, and uterine fibroids are individually associated with adverse obstetric outcomes. However, the coexistence of these conditions in pregnancy is rare and may significantly complicate antenatal management and fetal outcome. The presence of congenital fetal anomalies in such pregnancies further worsens neonatal prognosis. This report describes a primigravida with multiple uterine fibroids complicated by placenta previa and placenta succenturiata, associated with severe fetal anomalies and an unfavourable neonatal outcome.

Case presentation: A 29-year-old Nigerian unbooked primigravida at 30 weeks' gestation presented with abdominal pain, shortness of breath, insomnia secondary to pain, and vaginal discharge. Ultrasound examination revealed multiple uterine fibroids co-existing with pregnancy. Clinical examination showed stable vital signs with a fundal height of 44 cm, breech presentation, and fetal heart rate of 144 beats/minute. The patient was diagnosed with fibroids in pregnancy complicated by red degeneration and vulvovaginal candidiasis and managed conservatively.

Subsequent obstetric ultrasound demonstrated a viable intrauterine singleton with transverse lie, oligohydramnios, multiple large fibroids, and a low-lying placenta with an accessory succenturiate lobe. Features of intrauterine growth restriction and fetal renal anomaly were also noted. The patient and her family were counselled regarding the severe fetal anomalies, including the option of pregnancy termination given the likelihood of anomalies incompatible with extrauterine life; however, they opted to continue the pregnancy.

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At 35 weeks' gestation, an elective lower segment caesarean section was performed due to placenta previa type III, persistent abnormal fetal lie, oligohydramnios, and the presence of multiple large fibroids, which increased the risk of haemorrhage and made vaginal delivery unsafe. Intraoperative findings included multiple uterine fibroids, placenta previa type III, placenta succenturiata, and oligohydramnios.

A neonate weighing 2.1 kg was delivered with multiple congenital anomalies including fused lower limbs, absent external genitalia, absence of anal opening, and no identifiable vulvovaginal structures. Apgar scores were 5, 6, and 6 at 1, 5, and 10 minutes respectively. Despite immediate neonatal resuscitation and respiratory support therapy, the neonate died approximately three and half hours after birth due to severe congenital anomalies and associated complications.

Conclusion: This case highlights the complex interaction between abnormal placentation, uterine fibroids, and congenital fetal anomalies. Early antenatal diagnosis, close surveillance, and multidisciplinary management are essential to optimise maternal outcomes and prepare for possible adverse neonatal outcomes.

Introduction

As the most prevalent benign tumours of the female reproductive tract, uterine fibroids affect up to 70% of women by age 50, with roughly 30% experiencing symptoms that necessitate clinical intervention [1,2]. While these tumours occur across all demographics, they exhibit a higher prevalence and an earlier onset in women of African descent. For instance, by age 35, approximately 60% of African-American women are affected compared to 40% of Caucasian women [1,2]. When coexisting with pregnancy, fibroids significantly elevate the risk of obstetric complications, including acute pain from red degeneration, fetal malpresentation, preterm labour, fetal anomalies and abnormal placentation [2-4].

Placenta succenturiata refers to the presence of one or more accessory placental lobes connected to the main placenta by fetal vessels [5]. It is a rare placental anomaly but is clinically significant because it may predispose to complications such as placenta previa, vasa previa, postpartum haemorrhage, fetal anomalies and retained placental tissue [5]. Placenta previa, defined as placental implantation in the lower uterine segment partially or completely covering the cervical os, is another major obstetric complication associated with antepartum haemorrhage, preterm birth, and increased caesarean delivery rates [6].

The coexistence of placenta succenturiata, placenta previa, and large uterine fibroids in pregnancy is uncommon and poses significant diagnostic and management challenges [7]. Furthermore, when associated with fetal congenital anomalies and oligohydramnios, the prognosis for the fetus becomes particularly poor [8].

This report describes a primigravida with multiple uterine fibroids complicated by placenta previa and placenta succenturiata, resulting in severe fetal anomalies and an unfavourable neonatal outcome.

Case presentation

A 29-year-old Nigerian unbooked primigravida (G1P0+0) presented at 30 weeks' gestation with complaints of abdominal pain, shortness of breath, difficulty sleeping due to pain, and vaginal discharge. An earlier ultrasound examination had demonstrated fibroids co-existing with pregnancy. She had no history of excess alcohol intake or cigarette smoke exposure. She had no personal or family history of diabetes. However, there was a history of using local herbal medication for the treatment of fibroids prior to conception.

On examination, the patient appeared stable. She was afebrile, not pale, and anicteric. Her pulse rate was 92 beats per minute and blood pressure was 122/68 mmHg. Abdominal examination revealed a fundal height of 44 cm. Abdominal palpation of fetal parts and the determination of fetal lie were severely limited and rendered technically challenging by the distorted uterine architecture caused by multiple large, firm pelvic masses. The fetal heart rate was 144 beats per minute.

A clinical diagnosis of fibroids in pregnancy complicated by red degeneration and vulvovaginal candidiasis was made. Following extensive counseling, the patient was initiated on a course of conservative management. This regimen comprised an oral multi-amino acid and iron supplement (containing iron, amino acids, and B-complex vitamins) administered twice daily for two weeks, paracetamol 1 g three times daily for three days for analgesia, and gastroprotective therapy consisting of omeprazole 20 mg twice daily for two weeks alongside an aluminum hydroxide/magnesium hydroxide antacid suspension (10 ml three times daily for one week). She also received intramuscular dexamethasone 12 mg 12 hourly for 24 hours to enhance fetal lung maturity and klovinal pessaries once nightly for 12 days. A repeat ultrasound was scheduled after two weeks.

Subsequent obstetric ultrasonography confirmed a singleton intrauterine gestation positioned to the maternal left, exhibiting normal cardiac activity. Multiple large uterine fibroid masses

were mapped along the anterior, lower, and fundal uterine walls: a large cervical/lower uterine segment mass measuring 106 X 89 mm, an anterior corporeal mass measuring 59 X 35 mm and a dominant fundal subserous mass measuring 132 X 96 mm. The main placental mass was located anteriorly, with a distinct posterior accessory lobe identified, consistent with a diagnosis of placenta succenturiata. Both placental components were noted to be low-lying in relation to the internal cervical os. The cervical canal remained closed, with a preserved cervical length of 4.6 cm. Following these findings, the patient and her family were extensively counseled regarding the heightened obstetric risks associated with a low-lying succenturiate placenta complicated by a massive multinodular fibroid uterus, including the potential risks of antepartum haemorrhage, malpresentation, and preterm delivery, and the decision was made to continue conservative pregnancy optimisation.

There was oligohydramnios with minimal amniotic fluid observed. The biophysical profile score was reassuring for fetal breathing, movement, tone, and fluid. Estimated fetal weight was 2.2±0.3 kg, with an estimated gestational age of approximately 33 weeks. Laboratory investigations revealed a packed cell volume of 30.8%, while screening for veneral disease research laboratory (VDRL), HIV, hepatitis C virus, and hepatitis B surface antigen were negative. As the most prevalent benign tumours of the female reproductive tract, uterine fibroids affect up to 70% of women by age 50, with roughly 30% experiencing symptoms that necessitate clinical intervention [1,2]. While these tumours occur across all demographics, they exhibit a higher prevalence and an earlier onset in women of African descent. For instance, by age 35, approximately 60% of African-American women are affected compared to 40% of Caucasian women [1,2]. When coexisting with pregnancy, fibroids significantly elevate the risk of obstetric complications, including acute pain from red degeneration, fetal malpresentation, preterm labour, and abnormal placentation [2-4].

A further ultrasound evaluation showed a viable intrauterine singleton fetus with oligohydramnios, intrauterine growth restriction, coexisting fibroids, and suspected fetal renal anomalies including hydronephrosis with possible polycystic kidney disease. The estimated fetal weight at that stage was approximately 2.2 kg. The patient and her family were extensively counseled regarding the guarded prognosis associated with fetal renal abnormalities and secondary oligohydramnios. As a supportive, short-term temporising measure to optimise uteroplacental perfusion, the patient was advised to increase her oral fluid intake to 3–4 liters daily; this hydration strategy was targeted at transiently modifying maternal-fetal osmotic gradients to support amniotic fluid volume, rather than addressing the primary aetiology, which remained inherently rooted in compromised fetal urinary production. Given the highly complex and high-risk nature of these combined maternal and fetal findings, intensive feto-maternal surveillance was maintained.

At 35 weeks' gestation, an elective lower segment caesarean section was performed due to placenta previa type III, placenta succenturiata, persistent abnormal fetal lie, oligohydramnios, and the presence of multiple large fibroids, which increased the risk of haemorrhage and made vaginal delivery unsafe (Figure 1). The placenta weighed 0.8 kg and estimated intraoperative blood loss was approximately 350 ml and no blood was transfused.

Figure 1: Placenta seen at delivery showing placenta succenturiate indicating extra lobe.

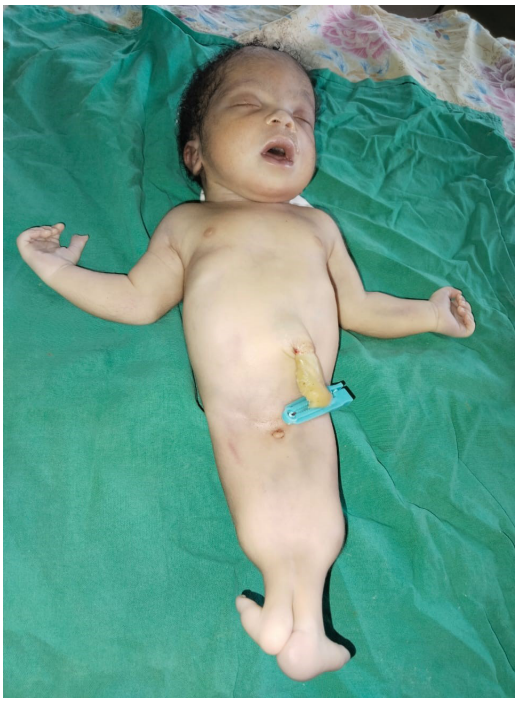

Figure 2: Fused lower limbs with visibly separated foot and absent external genitalia.

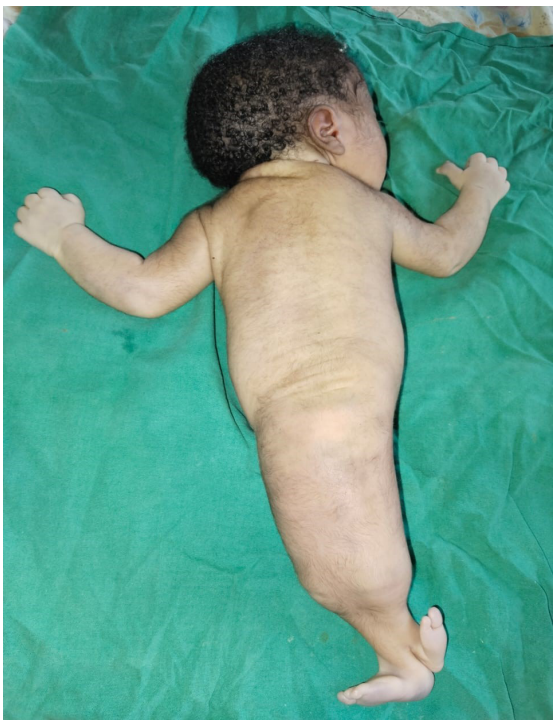

Figure 3: Fused lower limbs with visibly separated toes and absent anal orifice.

A neonate weighing 2.1 kg was delivered with multiple congenital anomalies (Figures 2 & 3). These included fused lower limbs, absence of external genitalia, absence of an anal opening, and absence of identifiable vulvovaginal structures. Sex assignment at birth was not possible. Apgar scores were 5 at one minute, 6 at five minutes, and 6 at ten minutes.

The neonate developed poor respiratory effort with oxygen saturation a few minutes after delivery necessitating immediate resucusitation with respiratory support therapy thereafter and required immediate resuscitation, including intranasal oxygen therapy. Evaluation by a Consultant Neonatologist confirmed the presence of multiple severe congenital anomalies incompatible with life. The neonate died despite all resucitative measures three and a half hours after birth (08:00 to 11:30).

Postoperatively, the mother received intravenous ceftriaxone 1 g daily for 48 hours, intravenous metronidazole 500 mg eight-hourly for 48 hours, rectal diclofenac 100 mg 12-hourly for 72 hours, and intramuscular pentazocine 30 mg six-hourly for 24 hours. The urethral catheter was removed 12 hours after surgery. The postoperative period was uneventful, and the patient was discharged home 72 hours after delivery. Bereavement counselling and psychological support were provided. The parents declined post-mortem examination.

Discussion

This case illustrates the complex interplay between uterine fibroids, abnormal placentation, and severe fetal congenital anomalies. Each of these conditions independently carries significant obstetric risks, and their coexistence can further complicate pregnancy management.

While up to 10.7% of pregnancies involve uterine fibroids, the majority remain uncomplicated [2]. However, the risk of clinical complications rises to between 10% and 30% when a patient presents with multiple fibroids, masses larger than 5 cm, or tumors located within the lower uterine segment [2]. The most frequent antenatal complication is red degeneration, which affects approximately 8% of these patients and presents with acute abdominal pain [9]. Furthermore, large fibroids can distort the structural anatomy of the uterine cavity, potentially disrupting normal blastocyst implantation and predisposing the patient to abnormal placentation, including placenta previa [2,9].

Placenta succenturiata is a relatively rare placental abnormality characterized by accessory placental lobes connected to the main placenta by fetal vessels. Its incidence is estimated at 0.6% to 1.0% of all pregnancies [10]. The condition is clinically important because it increases the risk of vasa previa, postpartum haemorrhage, retained placental tissue, and fetal compromise [10].

In the present case, the coexistence of placenta succenturiata and placenta previa further complicated the pregnancy. Prior literature confirms that the presence of an accessory succenturiate lobe significantly correlates with adverse obstetric outcomes [11]. Placenta previa itself is associated with antepartum haemorrhage, preterm birth, and increased perinatal morbidity and mortality. The presence of large uterine fibroids may have contributed to abnormal placental implantation in the lower uterine segment [12].

The performance of myomectomy concurrently with caesarean delivery presents substantial clinical challenges, primarily due to elevated risks of severe haemorrhage and the potential necessity for emergency hysterectomy. When uterine fibroids coexist with placenta previa, the complexity of surgical intervention intensifies significantly, leading most obstetricians to exercise extreme caution regarding fibroid excision during the procedure. Nevertheless, successful intraoperative myomectomy during caesarean birth has been documented in selected cases without significant adverse outcomes [13]. Importantly, the potential teratogenic or physiological impact of the patient's prior use of non-orthodox herbal remedies to treat her fibroids before conception remains a highly significant factor that warrants close consideration.

While co-existing uterine fibroids significantly increase the technical difficulty of obstetric interventions and caesarean delivery planning, the defining clinical challenge in this case centers on the late-gestation diagnosis of severe congenital anomalies incompatible with extrauterine life [14]. In low and middle-income countries like Nigeria, the absence of standardised, routine first- and second-trimester structural screening programmes frequently pushes the detection of lethal anomalies into the late second or third trimester [15]. This delayed window of identification severely compromises reproductive autonomy and limits clinical options. By the time a lethal defect, such as the suspected severe polycystic kidney disease in this index case, is identified, patients are often forced to navigate a restrictive legal environment where termination of pregnancy is heavily criminalised unless the maternal life is explicitly endangered. Even when guidelines by national regulatory bodies exist for therapeutic termination in the presence of severe fetal anomalies, a lack of clear institutional framework and fear of legal repercussions often leave clinicians hesitant to offer these services late in pregnancy. Consequently, couples are frequently compelled to continue carrying a non-viable pregnancy to term. This creates an agonising clinical journey marked by prolonged anticipatory grief, showcasing a critical need for early, affordable mid-trimester prenatal anomaly screening alongside clear legal provisions for compassionate termination when severe, lethal defects are confirmed.

The fetus in this case had multiple severe congenital anomalies, including fused lower limbs, absence of external genitalia, and absence of an anal opening. These features suggest complex caudal developmental anomalies such as sirenomelia or caudal regression spectrum, rare conditions often associated with oligohydramnios and renal anomalies [15]. Sirenomelia, also called mermaid syndrome, is characterized by fusion of the lower extremities and occurs in approximately 0.8-4 per 60,000-100,000 pregnancies [15]. The exact cause is unknown, but reported risk factors include maternal diabetes mellitus, teratogenic drugs, genetic susceptibility, vascular hypoperfusion, cocaine exposure, environmental contaminants, and extreme maternal age. Common associated anomalies include absent or ambiguous genitalia, imperforate anus, renal agenesis, absent urinary bladder, single umbilical artery, pulmonary hypoplasia, cardiac defects, diaphragmatic hernia, and skeletal abnormalities [15]. Although its features may overlap with those of caudal regression syndrome and VACTERL association, sirenomelia is considered a distinct entity [15].

Oligohydramnios observed in this pregnancy may have been secondary to underlying renal agenesis or severe urinary tract malformations, which are commonly associated with these syndromes. The absence of urine output after birth further supports severe urinary tract abnormalities [15].

This case highlights a critical clinical history, particularly relevant in low- and middle-income countries where the use of unregulated herbal remedies is prevalent. Periconceptional exposure to these substances may account for the abnormal placentation and impaired fetal development observed here. Early prenatal detection of severe congenital anomalies is crucial for counselling and pregnancy management. However, in some cases, structural anomalies may be difficult to fully characterize until later stages of pregnancy, particularly when complicated by oligohydramnios or maternal conditions such as large fibroids that limit ultrasound visualization. Despite appropriate antenatal monitoring and timely delivery, the neonatal outcome in this case was poor due to the severity of the congenital malformations.

This case report underlines that when managing early perinatal death associated with multiple fatal congenital anomalies, the integration of structured emotional and psychological support is a vital component of holistic patient care. Women often experience significant distress at the time of diagnosis, and for some, the psychological impact may persist, leading to long-term emotional consequences. This burden may be intensified by the limited availability of formal psychological support and structured postnatal debriefing [16]. Furthermore, existing literature indicates elevated rates of maternal anxiety, depression, and post-traumatic stress disorder (PTSD) during complicated gestations, raising serious concerns regarding the adequacy of current psychological frameworks for patients navigating co-occurring placental and fetal anomalies [17,18]. Although specific psychological interventions for women with multiple fetal anomalies at birth are not well established, several supportive measures could be incorporated into routine care [19]. These include providing reliable written information, ensuring clear referral pathways to mental health services during the antenatal and postnatal periods, and offering a consultant-led postnatal debrief to better support women and their families [19].

Conclusion

The coexistence of uterine fibroids, placenta previa, and placenta succenturiata represents a rare and complex obstetric scenario. When combined with severe fetal congenital anomalies and oligohydramnios, the prognosis for the neonate may be extremely poor. Prolonged use of herbal medications in pregnancy may carry a significant risk of causing fetal anomalies. This case highlights the importance of detailed antenatal imaging, multidisciplinary care, and early counselling of parents regarding potential outcomes, including option of termination for anomalies incompatible with life. Prompt recognition of placental abnormalities and congenital fetal anomalies allows for better planning of delivery and neonatal care while ensuring optimal maternal safety.

Declarations

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Author contributions: GUE, ECI, and CAF contributed to surgery while KON contributed to the perinatal management of this patient. ECI, GUE, AVE, GTI, KON, EUN, CGO, OKN, COE, CBO, CAO, GOU and ACE critically revised the report, commented on drafts of the manuscript, and approved the final report.

Informed consent: Informed written consent was taken from the mother for possible publication without listing her name or revealing her identity. Patient anonymity has been preserved.

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Consent for publication: Written informed consent was obtained from the index patient to publish this case report and any image which accompanied it.

Availability of data and materials: Data sharing is not applicable to this article as no datasets were generated or analysed during this study.

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