CASE REPORT

Obstetrics

A rare cause of severe oligohydramnios in the third trimester secondary to uterine perforation due to unsafe abortion: A case report
Bare A. Omar1*, Ernesto L. Miji1, Ali S. Kulthum1, Rose J. Kosgei1

1Department of Obstetrics and Gynecology, University of Nairobi, Nairobi, Kenya

*Correspondence: aobomar@gmail.com

Received: 13 December 2022; Revised: 16 August 2023; Accepted: 18 August 2023; Available online: September 2023

Copyright © 2023, The authors. Published by JOGeca. This is an open access article under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted reuse, distribution, and reproduction in any medium provided the original author(s) and the source are properly cited.

Abstract

Background: Uterine perforation following an unsafe abortion is rare but can lead to severe maternal morbidity and mortality.

Case presentation: A 28-year-old para 0+1 at 34 weeks gestation, presented with a history of generalized abdominal pain and reduced fetal movements for one week. Ultrasound revealed severe oligohydramnios; however, she did not have a history of liquor drainage. She was scheduled for emergency cesarean delivery. Intraoperatively, approximately 300mls of free clear fluid was noted. A live female infant weighing 2200 grams and with Apgar scores of 9, 10, and 10 at 1, 5, and 10 minutes was extracted.

Introduction

Oligohydramnios is defined as a decreased amniotic fluid volume that is less than the minimum expected for gestational age (1). Diagnosis is usually made by an objective assessment of amniotic fluid index (AFI) ≤ 5cm or single deepest pocket (SDP) < 2cm by ultrasound (1). Amniotic fluid is crucial for fetal development. Pregnancies complicated by oligohydramnios are at increased risk of pulmonary hypoplasia, particularly mid-second-trimester oligohydramnios, fetal deformation, and umbilical cord compression (2). Fetal outcome generally depends on the underlying cause, severity, gestational age of occurrence, and duration of oligohydramnios. Some adverse perinatal outcomes associated with pregnancies complicated by oligohydramnios include stillbirth, low birth weight, preterm delivery, and neonatal death (3). The World Health Organization defines unsafe abortion as a procedure performed by an unskilled or untrained provider using unsafe or less-studied methods to terminate a pregnancy (4). It is estimated that every eight minutes, a woman in low- and middle-income countries (LMICs) dies of complications related to unsafe abortion (5). This is partly because most LMICs, especially in sub-Saharan African countries, have very restrictive abortion laws, no or limited access to reproductive services, and a high rate of unmet family planning needs (6). This is a case of unsafe abortion that resulted in uterine perforation, which was not
recognized initially. Three years later, the patient presented with reduced fetal movements, maternal ascites, and severe oligohydramnios.

Case presentation

A 28-year-old para 0+1 at 34 weeks of gestation, presented with a history of generalized abdominal pain and reduced fetal movements for one week. The patient did not report vaginal bleeding or drainage of liquor. All her antenatal visits were unremarkable. An obstetric ultrasound performed at a referral facility revealed maternal ascites, severe oligohydramnios (AFI 1.87cm) with a biophysical profile of 4/8 (liquor and movement 0), and umbilical artery resistive index of 0.57. The placenta was posterior, and no fetal anomaly was noted (Figure 1). She did not have a history of contraception use. Her past medical, surgical, and family social histories were unremarkable. Her vital signs were unremarkable. She had mild abdominal tenderness. The fetal heart rate was 147 beats per minute. On speculum examination, liquor drainage was not noted. Her laboratory investigations were unremarkable. An impression of primigravida at 34 weeks 3 days with severe oligohydramnios and non reassuring fetal status was made. The patient was admitted to the labor ward and was started on dexamethasone 6mg twice daily for two days. On the third day of admission, she was scheduled for an emergency cesarean delivery.

![Figure 1: Umbilical artery Doppler studies.](image)

Intraoperatively, approximately 300mls of free clear fluid was noted after opening the peritoneum. A live female infant with a birth weight of 2200 grams and Apgar scores of 9,10, and 10 at 1, 5, and 10 minutes was extracted. After the uterine incision was closed, a uterine opening approximately 2 * 2cm with fibrotic edges was noted at the fundus, which was oozing blood into the peritoneal cavity. On further examination, blood was noted coming from the placental bed. The opening was partially covered by the left fallopian tube fimbriae and infundibulum (Figure 2). The fallopian tube was released slowly with blunt dissection. The index finger was introduced slowly and could go up to the uterine cavity (Figure 3). The edges of the uterine perforation were refreshed and closed in two layers, and hemostasis was achieved. On further inquiry postoperatively, the patient reported that she had a clandestine abortion three years before her pregnancy that probably led to uterine perforation, which was not detected at that time. Her postoperative period was uneventful, and the mother and neonate were discharged on the third postoperative day. Her postpartum period was uneventful.

Discussion

More than four million unsafe abortions are reported annually in Africa. Two-thirds of unintended pregnancies in LMICs occur in women who are not using any form of contraception (5). In Kenya, contraception access and use have increased over the years; however, there is still an unmet need for contraception. According to the Kenya Demographic and Health Survey (KDHS) 2014, the unmet need for contraception among married of reproductive age was estimated to be about 18% (7). Universal access to contraception can reduce unsafe abortion and the complications associated with it. Uterine and gut perforation are among the major complications of unsafe abortion. The incidence of uterine perforation reported in the literature is approximately 0.4 to 15 in 1,000 abortions, and results in high maternal morbidity and mortality (8). In some instances, uterine perforation following an unsafe abortion is not recognized early, which may lead to severe adverse maternal outcomes.

Here, the patient may have sustained uterine perforation during unsafe abortion which did not completely close and was incidentally discovered during cesarean delivery. This may have led to amniocele and rupture of the amniotic sac followed by extravasation of amniotic fluid into the peritoneal cavity causing oligohydramnios, and maternal ascites. The amniotic fluid in the peritoneal cavity caused an inflammatory reaction causing mild abdominal tenderness. The patient was clinically stable and there was no evidence of vaginal or intraabdominal bleeding noted during cesarean delivery from the uterine perforation site which rules out uterine rupture as a cause of oligohydramnios. Similar cases of oligohydramnios and maternal ascites without drainage of liquor and without known cause have been reported but were later noted to be due to uterine rupture noted during emergency cesarean delivery (9,10).
Figure 2: A and B: The left fallopian fimbriae partially covered the uterine perforation (arrow).

Figure 3: A: Attempts to introduce the index finger of the surgeon into the uterine perforation (arrow); B: shows the Index finger going into the uterine cavity (arrow).

Conclusion
A high suspicion index should be indicated in patients presenting with isolated oligohydramnios with a previous history of unsafe abortion and uterine perforation, especially in regions where unsafe abortion is common.

Consent for publication
Informed consent for publication was obtained from the patient.

Acknowledgment
The authors acknowledge Esther N. Gloria, Dr. Rita Argo, and Dr. Elias Wakoli for their participation in the management of the case.

Conflict of interests
The authors declare no conflicts of interest.

Funding
None

References


