Case Report

Successful Vaginal Delivery in Locked Twins: A Case Report

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Abstract

Locked twins is a rare and dangerous multiple pregnancy and generally occurs in about 1 in every 1000 twin births. A 23-year-old female with gravida 1, para 0 pregnancy was admitted. The head of the first fetus was locked to the chin of the second fetus (alive) at the top of the symphysis pubis. The uterus was relaxed with isoflurane. The legs and the back of the baby were extended to the symphysis pubis. The head of the second baby was gently positioned to the posterior walls of uterine cavity on the upper side of it. So, the locked head of the first baby was released and both fetuses were delivered vaginally. The second baby was in good condition. By recognizing the probable cases, radiological diagnosis, and punctual cesarean delivery, it is possible to avoid the fetal morbidity and mortality in locked twins.

Keywords: *Labor, obstetric, parturition, twins*

Introduction

Locking or locked twins is a rare condition in which during birth, a fetus in a breech position becomes locked at the chin with his twin fetus who is in a vertex position. And, it occurs in about 1 in every 1000 twin births. The stillbirth rate of locked twins is estimated to be 50%.[1]

Case Report

A 23-year-old female with gravida 1, para 0 and 39-week gestational age was referred to Amir Almomenin Hospital of Zabol in 2015 because of the prolonged labor. She also had anemia. In 28th week of gestation, sonography showed a cephalic presentation and a breech presentation. Moreover, the clinical tests showed that blood pressure, pulse rate, and body temperature were 100/60, 100, and 37.8, respectively.

The uterus has been enlarged and tender. The heart sound of only one fetus was heard (136/min) in auscultation. The onset of patient's labor pain to referral to the hospital took 22 h.

The first baby had come out up to the shoulders and back and was hung from the neck. This baby had no heart beat and showed organ cyanosis. At vaginal examination, the amniotic sac was ruptured and the head of the first fetus, who had intrauterine fetal death, was locked with the chin of the second (alive) fetus at the top of the symphysis pubis.

Interlocking was distinguished in the above patient; Foley catheter was inserted into two main vessels, then she was transferred to the operating room. The uterus was loosened with isoflurane and the patient was posed in lithotomy position.

The legs and the back of the first fetus were wrapped with a towel by the assistant and were drawn to the symphysis pubis.

The head of the second fetus was gently positioned to the posterior walls of and uterine cavity on the upper side of it. The locked head of the first fetus was released and the first fetus was delivered vaginally by this way. Then, the cervix was examined immediately for full dilation.

The heart rate of the second fetus with cephalic presentation was normal. Isoflurane was no more applied. The uterine contractions continued spontaneously and the second fetus was delivered vaginally. In placental examination, the twins were dichorionic–diamniotic.

The delivery took 30 min. The first baby weighed 3100 g with Apgar score of 0/10, and the second baby weighed 2900 g with Apgar score of 9/10. Both babies were girl. Mother's health status was good with

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no successive bleeding. She was transferred to the general ward while the second baby was beside her. Both were discharged with good general condition the next day.

Ethical considerations

The author certifies that she has obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

Discussion

Locked twins is a rare complication and occurs when the first fetus had a breech presentation and the second a cephalic presentation. Locked twins are generally manipulated using cesarean section. Large pelvis, oligohydramnios, small fetuses, early rupture of the second amniotic sac, monochorionic–monoamniotic twins, and uterine hypertonicity are some predisposing factors of locking.[1] In our case, the patient was not cared prenatally, and she referred with advanced stage of labor (arrested labor). Bennett has reported the locked twins. The first fetus is usually in worse condition than the second.

Ultrasonography must be performed in twin pregnancies, particularly when the first fetus has a breech presentation or the results of abdominal palpation are ambiguous. Early diagnosis of interlocking twins might be done by a repeat ultrasonography if there is a failure in the descent of first fetus in case of proper uterine contraction in an adequate pelvis.[1,2] In locked twins, in case of the partial born, we can release the lock by Zavanelli maneuver.[3,4] If the diagnosis of locked twins is done after the death of first fetus, she/he will be decapitated and her/his head will be pushed upward for a safe delivery of the second fetus.[5] However, here we managed to release the head of the first fetus without decapitation. Besides, we successfully managed this situation by loosening the uterus with isoflurane and subsequently pushing the head of first fetus upward.

In a previously reported case, uterine smooth muscle received relaxant with hexoprenaline, and the labor was temporarily restrained and the head of the first fetus was released.[1]

In this case, the first fetus had died, the uterus loosened with isoflurane, the head of the second fetus was released, and finally delivered.

Conclusion

Handling the locked twins differs in each case. Adequate prenatal care with sonography and an appropriate evaluation should be done. High-risk patients must be recognized and the cases must be referred to the maternity hospital in the early stages of labor. In cases of twin pregnancies, arrested labor and locked twins must be prevented and if it occurs, appropriate actions must be taken to prevent maternal and fatal morbidity and mortality. By recognizing the probable cases, radiological diagnosis, and punctual cesarean section, prevention of morbidity and mortality will be possible.

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Conflicts of interest

Nothing to declare.

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