Two rare complications of twin gestation manifesting as arrest of descent in the second stage of labor

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ABSTRACT

Two rare complications of twin gestation, namely, conjoined twins and interlocking of twins, manifested as arrest of descent in the second stage of labor. This article reports in detail about how the diagnosis of conjoined twins was missed by ultrasonogram and interlocking of twins unusually occurred in diamniotic twins. The management of these rare conditions is also mentioned to aid readers to act accordingly in rare undiagnosed cases.

Key words: Conjoined twins, interlocked twins, intrapartum complications, twin gestation

INTRODUCTION

Our hospital has a busy labor room with around 15,000 deliveries/year. We cater to parturients who are booked with us as well as unbooked women. The incidence of multiple gestation is around 2%-3%. We encountered two rare complications of twin pregnancy within a gap of 2 weeks, both manifesting intrapartum and leading to significant morbidity. We report these two cases for their rarity and for the similarity in their manifestations.

CASE REPORTS

Case 1
An unbooked 22-year-old primigravida was admitted in labor room as a case of twin pregnancy at 37 weeks of gestation. Review of antenatal chart revealed monochorionic twins by late third-trimester ultrasonogram, and there was no comment about intervening membrane. First twin presented as vertex and the fetal heart sounds of both twins were normal.

Vaginal examination revealed a fully effaced cervix with 8 cm dilatation. Membranes were absent and clear liquor was draining. Vertex was at “0” station. She progressed and delivered the head of first twin. Surprisingly shoulder dystocia was encountered which was not expected in view of small size of babies in multiple pregnancy. Mc Robert’s maneuver was tried but anterior shoulder could not be hitched under the pubic symphysis. Delivery of the posterior arm was tried, and during that process, it was noted that the arm of the second twin had prolapsed by the side of the head of the first twin. The shoulders of the first twin were delivered with difficulty, but there was no further progress of labor. Conjoined twins were suspected, and cesarean section was performed. They were indeed conjoined twins, and difficulty was encountered to deliver them abdominally too. The types of conjoined twins were thoracopagus and omphalopagus [Figures 1 and 2]. Both babies died in...
immediate postnatal period. No traumatic or atonic postpartum hemorrhage was encountered.

Case 2
A 26-year-old G₂P₁L₁ was diagnosed to have twin gestation in early third trimester. She was admitted in labor room in the second stage of labor at 39 weeks of gestation. Review of her antenatal chart revealed monochorionic diamniotic twins by an early third-trimester ultrasonogram. The first twin presented as flexed breech with intact membranes. In view of advanced labor with an adequate pelvis and small size of the babies, she was planned for vaginal delivery. Artificial rupture of membranes was done and the patient was encouraged to bear down. Breech was delivered with usual precautions up to the lower angle of scapula. Difficulty was encountered during delivery of the shoulders. When a vaginal examination was done, the head of the second twin had engaged in the pelvis and that of the first was above the level of the brim. The rare complication of interlocking of twins was diagnosed. The patient was shifted to OT and under GA, and the engaged head of the second twin was pushed above the brim, but with no success. Hence, cesarean section was performed. It was found that the second baby’s amniotic sac had no liquor and it was a growth restricted baby. The engaged head of the second twin was disengaged and delivered. The head of the first twin was then pushed down and delivered vaginally. Decision to delivery interval was 15 min. A single placenta was delivered, and on examination, there was an intervening membrane. It was a monochorionic and diamniotic gestation as shown by the ultrasonographic finding. The patient had atonic postpartum hemorrhage which was controlled with oxytocics and B-lynch uterine compression sutures. The first baby (2.2 kg) was asphyxiated and was connected to a ventilator. Eventually, the baby died on postnatal day 2. The second baby weighed 1.8 kg and had normal Apgar and was started on breast-feeds.

DISCUSSION
With extensive availability and use of ultrasound even in the developing world, unforeseen complications in obstetrics have been reduced to a great extent. However, in spite of this, it is not uncommon to encounter problems.

The complications of interlocking of twins and conjoined twins in multiple pregnancy are rarely encountered, incidence of inter-locks of twins being 1 in 817 twin pregnancies and that of conjoined twins being 1 in 100,000 births.[1] As they can lead to significant maternal and neonatal morbidity and mortality, it is prudent to perform a detailed ultrasonogram in cases of multiple pregnancy to avoid such mishaps. However, despite an ultrasound, conjoined twin was missed in our case and even though interlocking is commonly seen in monoaonic twins, it occurred in diamniotic twins in our case.

Conjoined twins occur with monozygotic twinning when the embryo divides at 13–14 days from conception.[2] Sethi et al. suggest that conjoined twins should be suspected in all monochorionic and monoamniotic twin pregnancies.[3] Ultrasonographic features include visualizing the twins in same relative position in all views, direct opposition of the twins from each other, and extreme extension of fetal spine.[2,4] Some pitfalls mentioned in the diagnosis of conjoined twins are as follows: In some diamniotic twins, the dividing membrane can be very thin and difficult to identify, the conjoining might be so severe as to mimic a single fetus with multiple anomalies, all conjoined twins do not present as mirror image fetuses and can be misdiagnosed as a single fetus with malformation, both fetuses might have their own hearts, and in bicephalic pregnancy, one head might be fixed and the other higher up.[5] Ultrasound (nonpanoramic) in the third trimester can only show a part of the fetal anatomy and
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it is possible that the structure of one fetus is ascribed to the other fetus causing a mistaken impression of normal anatomy. Dwight noted that delivering conjoined twins after 35 weeks of pregnancy results in bad uterine incision extensions during cesarean sections, but in our case, fortunately no such problem was encountered. The prognosis of conjoined twins is very poor, 50% of them are still born, and 35% die in early neonatal period.\[1\]

Interlocking of twins is a rare phenomenon encountered in twins with twin A in breech presentation and twin B in vertex presentation. This combination of twin presentation is seen in 12%–29% of twin gestations. Among these, the incidence of interlocking of twins was 2.3%. The incidence is decreasing due to increased cesarean section (67%) for twin A in nonvertex presentation.\[3\]

Both our patients were seen late in labor, and there was a single record of an ultrasound which proved to be the undoing. The need for accuracy and adequate expertise in performing obstetric ultrasound cannot be overemphasized.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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