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DELAYED INTERVAL DELIVERY IN TWIN PREGNANCY WITHOUT CERCLAGE: CASE REPORT.

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DELAYED INTERVAL DELIVERY IN TWIN PREGNANCY WITHOUT CERCLAGE: CASE REPORT

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SUMMARY

This report describes a patient-counselling approach and non-surgical management of a dichorionic, diamniotic twin pregnancy where the delivery of the second twin followed the delivery of the first by 59 days. An initial ultrasound scan at twenty and a half weeks gestational age suggested cervical dilatation with protruding amniotic membrane of a dead first twin, and a viable second twin. She aborted the dead fetus at 21 weeks' gestation and delivered a healthy female infant weighing 1300g at twenty nine and a half weeks gestation. After the loss of the first foetus, delayed delivery in multiple pregnancies can be successful in selected cases as exemplified by the case presentation. In well prepared perinatal centers, with physically and psychologically balanced patients who are well informed about the risks and benefits of the procedure, delayed interval delivery in twin pregnancy without cerclage may be a reasonable strategy.

INTRODUCTION

As the number of multiple pregnancies increases (due primarily to the use of assisted reproductive treatments), a rise in the unexpected birth of one or more siblings at premature or pre-viable stages is observed. Sometimes following the birth of the first foetus contractions may cease. The common approach today is to facilitate the birth of the second foetus because of poor results (1). In 1880 Carson published the first case where 44 days were present between the births of the twins (2). In 1994, Kalchbrenner *et al* (3) developed a protocol for delaying birth and the cases to be selected. According to this: (a) the multiple pregnancy should be between 18 and 24 weeks, (b) the second pregnancy should be diamniotic, (c) the pregnancy sac to be preserved should not be damaged, (d) these should not exist: foetal distress, placental abruption and intra-amniotic infection. Whereas delaying the delivery of remaining foetuses improves their prognosis as exemplified by a number of case reports and reviews, (4, 5) there is currently no consensus regarding the most appropriate technique. The aim of this report is to add our experience to the currently limited literature regarding the best treatment of these unique and challenging pregnancies.

CASE REPORT

A 27 year old Para 1+0 was admitted in the hospital at the 20th week of a dichorionic, diamniotic twin pregnancy because of bleeding per vaginam. The ultrasound examination revealed a cervical length of 32mm and cervical dilatation with protruding amniotic membrane of a dead first twin

(male) in cephalic presentation, and a viable second twin (female) also in cephalic presentation (Figure 1). Two independent placentae were also visualised ultrasonically. Vaginal cultures were taken and blood tests performed to detect infection. The patient was treated with bed rest and prophylactic broad spectrum antibiotics intravenously for 48 hours and orally for ten days. No cerclage was placed and no tocolytic therapy was initiated. Her blood pressure, temperature, respiratory and pulse rates remained normal. Seven days later she expelled the non viable first twin, weighing 330g. The placenta was retained in-utero and left undisturbed. A high ligation of the umbilical cord was done. Contractions and bleeding stopped. Repeat ultrasound examination revealed a live second twin in cephalic presentation and with a normal biophysical profile. The retained placenta of the first twin was also visualised ultrasonically as an echogenic well outlined mass on the left lateral wall of the uterus measuring 59 × 82mm in size (Figure 2). After ten days of hospitalisation, despite counselling for possible risks of maternal sepsis and need for extended hospitalisation, the patient still requested for discharge and was discharged on request. She continued presenting at the antenatal clinic every week and was followed clinically every week and by ultrasound. At 29.4 weeks gestational age the patient presented with drainage of liquor and was consequently re-admitted in the hospital. Two doses of 12mg of dexamethasone injection were given intramuscularly within 24 hours, and intravenous ampicloxacillin and metronidazole injections repeated. Ultrasound examination confirmed a viable fetus in cephalic presentation with mild oligohydramnios. Twenty four hours after admission, augmentation of labor with oxytocin drip was done. A female neonate was born,

weighing 1300g with Apgar scores four and seven in one minute and five minute respectively. Two placentas were born, one of which was small and fibrous and calcified. The neonate was discharged from the neonatal care unit after 38 days, weighing 1880g, in good condition.

Figure 1

Dead first twin, live second twin



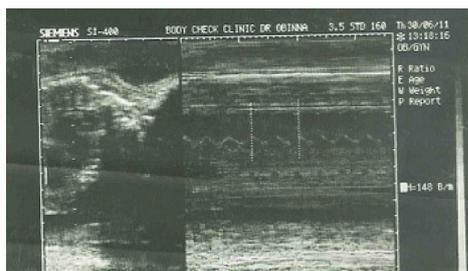
Figure 2a

Retained placenta of first twin coexisting with second twin



Figure 2b

Normal heart beats of second twin at 28 weeks



DISCUSSION

Delayed premature labour may be a beneficial approach in twin pregnancies in which one of the foetuses are born. This management strategy is generally referred to as conservative therapy (6). Active conservative therapy, bed rest, continuous hospitalisation or hospitalisation in intervals as in the index patient, high ligation of the umbilical cord of the first twin born, antibiotic therapy either continuous or at intervals, in addition starting corticosteroids after 26th week are recommended in these cases (7). Most authors recommend placement of a cerclage and for this purpose interventions like emergency cerclage and tocolysis have been tried with varied prognosis (8). One reason for cerclage is that silent cervical dilatation could play a role in the occurrence of the early birth of the first sibling. However, successful delayed-interval delivery without surgical intervention is possible as exemplified by this report. The invasive nature of cervical

cerclage and the increased risk of chorioamnionitis due to the closure of a potentially infected amniotic sac is certainly a great concern. If cervical cerclage is decided, it is advised to be done in aseptic conditions, during the first two hours after the birth of the first foetus and of course when there is no evidence of infection (8). There is also no consensus in the literature on the usage of prophylactic tocolytic therapy to delay the birth of the second twin. Wittmann *et al*, in their series, think that tocolysis is not helpful (9). Tocolysis is contraindicated in the presence of established chorioamnionitis. Vaginal examination should be avoided. Routine ultrasound monitoring should be the standard of care to monitor the remaining foetuses in order to monitor growth of the babies, amniotic fluid volume, placentation (site and status of the placentas), cervical length and dilatation. Monitoring should include a weekly full blood count, and coagulation studies. Even a large placental mass can be retained in the uterus and produce no demonstrable clinical symptoms as exemplified by this report.

When attempts for delayed-interval delivery are made, the aim should be prolongation of the second twin's delivery until the 28th to 32nd week (7). Continuation of the pregnancy after the 32nd week is not recommended, due to the high risk of sequelae for the mother and the fetus (6,7). Hence, risks should be explained and the parents prepared psychologically.

Further studies are needed to develop the most appropriate management option for delayed interval delivery in twin pregnancy. In well prepared perinatal centers, and with physically and psychologically balanced patients who are well informed about the risks and benefits of the procedure, delayed interval delivery in twin pregnancy without cerclage may be a reasonable strategy.

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