

Case Report

Conservative management of single foetal death in multiple pregnancy at a tertiary care hospital in Bangladesh: Two case reports

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Abstract

The single fetal death in multiple pregnancy is not rare. Death of one fetus in multiple pregnancy increases the risk of mortality and morbidity of the surviving fetus. This might pose management challenge to the obstetrician. It is a cause of great concern and psychological stress to the parents. Proper diagnosis and intervention in appropriate time can improve the maternal and neonatal outcome. Adequate counseling, psychological support and close follow up are mandatory. There are potential complications to the mother and the surviving twin.

Key words: Multiple pregnancy, foetal death, neonatal outcome

Introduction

Multiple pregnancy still constitute a difficult therapeutic problem. The incidence of twinning varies from place to place, being as high as 26.0 – 40.2 per 1000 deliveries in Nigeria^{1,2} and as low as 6.0 – 9.0 per 1000 deliveries in South and South-East Asia.³ Single or more foetal death in multiple pregnancy is not rare. The risk of mortality and morbidity in the surviving fetuses are considerable.⁴ The death of one fetus is also a shock to the parents and the attending obstetrician, who need to face the substantial foetal and maternal risks. A multidisciplinary approach, counseling, emotional support, and intensive foetal

surveillance are mandatory to manage single foetal death in multiple pregnancy.

Case-I

The patient was Mrs. Pervin, 25 years old, multigravida woman who presented at the Shaheed Suhrawardi Medical College Hospital, a tertiary hospital on account of incidental ultrasonic diagnosis of a dead second twin at 31+week's gestation. She only complained of lower abdominal pain for one month. The pregnancy was spontaneously conceived. She booked at the outdoor ANC in this hospital at 32+4 weeks gestation. She came with a USG report in which the impression was 34 weeks twin pregnancy with single foetal demise with spalding sign in dead fetus. (Figure-1)



Figure-1: USG picture of fetus with spalding sign

Her blood group was O rhesus D positive. On examination, she was not pale, not febrile and an-icteric. She had bilateral pedal edema. Her pulse rate was 88 beats per minute and her blood pressure was 110/60mmHg. The symphysio-fundal height was 32 cm. The leading twin was in longitudinal lie, cephalic presentation and the fetal heart rate was 146 beats per minute. It was difficult appreciating the lie and presentation of the second twin and the fetal heart sound was not heard. The clinical impression was intrauterine fetal death of the second twin.

The patient and her husband were counseled and the line of management duly explained to them. She was admitted for observation and for conservative management. On admission, a repeat ultrasound scan was done to ascertain the chorionicity, estimated weight. The findings were a viable leading twin in breech presentation with good cardiac activity and an estimated weight of 1.834 kg at 32 weeks 3

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days gestation while the second twin was devoid of cardiac activity and in cephalic presentation with collapse of the foetal head and abdomen making the biometric parameters difficult to measure however the femur length measured 58mm corresponding to 28 weeks gestation. There was difficulty ascertaining the chorionicity. After admission her full blood count was done, which showed hemoglobin of 12.1gm/dl, raised white blood cells (16,500/cmm) and elevated neutrophil (85%) but normal bleeding (2 min 4 sec) and clotting (5 min 30 sec) time. Other investigations like electrolytes, urea and creatinine, urinalysis, VDRL test and OGTT were within normal limit. On admission, she was given antenatal steroid (Dexamethasone) to facilitate lung maturity. She was also maintained on routine haematinics all through. She had serial assessment with weekly full blood count, clotting profile and biophysical profile. She also maintained a daily fetal kick chart. Two units of blood was grouped and saved for her. The neonatologists and anaesthetists were informed in case there is need for urgent delivery. Her condition remained satisfactory with good haematological profile and foetal surveillance results. She was scheduled for induction of labour at term.

But at 35+2 completed weeks (after 19 days of admission) on 19.12.15, she started labour pain spontaneously. Her 2nd stage of labour was prolonged and FHR became irregular, so emergency LSCS was done on that day. A live male baby who appeared morphologically normal with a birth weight of 2.5kg and an APGAR score of 8 at 1 minute and 10 at 5 minutes with 3 circles of umbilical cord around the neck. A dead fetus of 2.1 kg was noted within the placenta which appeared to be dichorionic as a separating membrane was noted. The live born was handed over to the neonatologists who were in attendance at delivery for neonatal resuscitation and further assessment and post-natal care of the newborn. The patient had analgesics and haematinics post-partum. A repeat full blood count done on the second day post-delivery was essentially normal. She was subsequently discharged home with her baby in good condition with a 6 weeks appointment to come for post-natal check. She was counseled prior to discharge to maintain all appointments at the neonatal unit and to ensure her baby was fully immunized.

Case-2

The patient Mrs. Sharmin Akhter, 19 years old, primigravid woman who presented at the Shaheed Suhrawardi Medical College Hospital, a tertiary hospital on account of incidental ultrasonic diagnosis of a single fetal demise of triplet pregnancy at 35+ weeks gestation following referral from a

private hospital. She had no complaints and a review of her system was essentially normal. She was conceived after taking one cycle of ovulation inducing drug (Letrozole, 5 mg). She booked at the clinic at 5 weeks gestation following a positive qualitative urine and blood β hCG test. She had obstetric ultrasound scans at 8 weeks of gestation showing viable twin gestation.

One week later she noticed slight P/V bleeding and again did a USG which showed viable triplet pregnancy with threatened abortion and treated conservatively. After that she was under regular antenatal check-up and advised for ultrasonography at 30+weeks. All 3 babies were healthy at that time. Suddenly at her 35+5 weeks of pregnancy, she developed lower abdominal pain and advised for USG. Report showed about 33 weeks 2 days of triplet pregnancy, two are alive, another one is dead. Then she referred to ShSMCH from Kusthia for better management. After admission USG showed triplet pregnancy with two live and one dead fetus with positive spalding sign and single placenta. There was difficulty ascertaining the chorionicity. On examination, she was severely anemic, afebrile, anicteric but hypertensive. She had bilateral pitting pedal edema. Her pulse rate was 102 beats per minute and her blood pressure was 90/60 mm(Hg). The SFH was 36 cm. The leading fetus was in longitudinal lie, cephalic presentation and the fetal heart rate was 156 beats per minute. It was difficult appreciating the lie and presentation of the second alive fetus. Her blood group was A rhesus D positive. After admission, 3 units blood was transfused. The neonatologists and anaesthetists were informed in case there is need for urgent delivery. Her labour pain started spontaneously on 05.12.15. But LSCS was done on the same day due to fetal distress.² alive babies weighing 1.4 & 1.4 kg with a macerated dead fetus were delivered. The live born was handed over to the neonatologists who were in attendance at delivery for neonatal resuscitation and further assessment and post-natal care of the newborn. A repeat full blood count done on the second day post-delivery was essentially normal. She was subsequently discharged home with her babies in good condition and return for post-natal check-up after 6 weeks. She was counselled prior to discharge to maintain all appointments at the neonatal unit and to ensure her baby was fully immunized.

Discussion

Enbom⁴ has reported that the incidence of twin pregnancy with a single intrauterine death ranges from 0.5% to 6.8%. An incidence of 3.7% was reported in a prospective study of 188 monozygotic twins in the National Collaborative Perinatal Project.⁵ 'Vanishing twin syndrome' is described

as a twin pregnancy that was diagnosed at one time, but with just one baby being eventually delivered. Even when there are two viable foetuses identified in the first trimester, the disappearance rate for one of them can reach 29%.⁶

Intrauterine death can occur during any gestation. However, a reliable estimate of the incidence with reference to the timing of the postconceptional loss is difficult, as large prospective studies are scarce. In general, chorionicity rather than zygosity determines the risk of mortality and the morbidity. Hence, it is important to determine the type of placentation by ultrasonography. The perinatal mortality of monochorionic twin pregnancies is double that of dichorionic twin pregnancies.⁷ When the fetal death occurs after midgestation there is 17% chance that the surviving fetus in monochorionic gestation will either die or suffer from major morbidity.⁸ Major morbidity is unlikely to occur in surviving twin of a dichorionic gestation.⁹

If the fetal demise occurs in the first trimester, the risk of complications arising is much lower than in situations in which it occurs in the second or third trimester because the dead fetus may be fully re-absorbed with no further evidence of twinning or risk of disseminated intravascular coagulopathy and subsequent ultrasonographic examination may reveal a singleton fetus and this is called the “vanishing twin syndrome”. In the second and third trimester however, the death of a twin might pose a considerable challenge to the obstetrician bearing in mind the risk of disseminated intravascular coagulopathy following an intrauterine fetal death. It is also a cause of great concern and psychological stress to the couple.

There is no specific contraindication to vaginal delivery following death of a twin. However, situations may arise sometimes in which caesarean section may be indicated and the rate varies considerably ranging from 19 – 92%¹⁰. In a number of cases reported, delivery was by caesarean section, the indication in most cases being fetal heart rate irregularities (11,12). Cord abnormality (commonly torsion of the umbilical cord) was observed in some of these fetuses and was thought to have caused intrauterine hypoperfusion resulting in the death of a twin. There was no cord abnormality observed in the case presented.

The management of single fetal death in a twin pregnancy can be difficult for any obstetrician. The sequelae of a single foetal death in a twin pregnancy depend on the gestation and placentation. Death in the late second or third trimester is associated with significant morbidity and mortality in the surviving twin. The problems are more severe in monochorionic twin pregnancies. Antenatal evaluation of

chorionicity by ultrasonography is important to assess the potential risk. Conservative management is preferred. However, the risk of keeping the surviving twin in a hostile intrauterine environment must be weighed against the risk of preterm delivery and its sequelae. Close fetal surveillance and serial monitoring of the patient’s haematological profile should be performed during conservative management. Adequate counseling, psychological support, and long-term followup are mandatory.

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