

CASE REPORT

SURVIVOR OF CO-TWIN FOLLOWING INTRAUTERINE DEMISE OF ONE FETUS

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ABSTRACT: This is a case report of a 25yr old lady, G₂,P₁₊₀, at 27 weeks period of gestation admitted due to decrease fetal movement for further management. Ultrasonography showed intrauterine twin gestation with demise of one fetus. The risk of mortality and morbidity in the surviving twin is considerable. Mother was managed conservatively with intensive monitoring. She delivered a girl baby weighing 2.25 kg by LSCS at 38 wks of gestation with no obvious congenital abnormality along with a dead macerated girl fetus. Multidisciplinary approach and intensive monitoring can improve the fetomaternal outcome.

KEY WORDS: Twin gestation, Intra uterine fetal demise, Lower segment caesarean section (LSCS).

INTRODUCTION: Twin pregnancy is seen at rate of approximately 1: 250 and perinatal morbidity and mortality is increased in these pregnancies. In recent times, the number of twin, triplet and higher order multiple births have increased. The incidence of increasing dizygotic twins is due to overuse of ovulation induction drugs and Assisted Reproductive Technology (ART). Along with multiple gestations, there is increase in the various complications during antenatal, intra partum and postnatal period. In general, chorionicity rather than zygosity determines the risk of mortality and morbidity [1]. Monochorionic diamniotic (MCDA) twin placentation occurs in one in every 400 pregnancies, and is characterised by placental vascular anastomoses and thus inter-fetal transfusion [2]. Risk of development of DIC is more in third trimester of pregnancy [3].

CASE REPORT: A 25 years old lady G₂,P₁₊₀, from Purulia, West Bengal, India was admitted to Bankura Sammilani Medical College on 12.06.2013, with history of decrease fetal movement for last two days. She had a normal vaginal delivery 3yrs back with uneventful antenatal, intranatal, postnatal period. Her LMP-15.10.2012 & EDD-22.07.2013. She had normal menstrual cycle before conception with average 28-30 days interval. She confirmed her pregnancy by urine kit test in her native area. She used to attend antenatal clinic regularly and had taken iron, calcium, tetanus toxoid injection. She had neither any significant past medical, surgical history nor any family history. No history of intake of ovulation inducing drugs or history of twin in the family. During her last visit she complained of decrease fetal movement. Ultrasonography revealed twin pregnancy with single fetal demise. She was referred to our medical college. On admission her BP was 130/80mm of Hg, Pulse-86/min., mild pallor, no edema, neck veins were not engorged. Per Abdominal findings-

Fundal height correspond to 32 wks of gestation, one fetus in breech presentation with normal fetal heart rate, the 2nd one was not well delineated. Her routine haematological investigation (Hb%, Platelet count, ABO & Rh, BT, CT, PT, APTT) were normal. No albuminuria seen in urine. LFT, Urea, Creatinine, Uric Acid were normal. Due to financial reason FDP, D-Dimer test could not be performed. First Ultrasound were performed at 32wks -1st twin live fetus in breech presentation,

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approx gestational age 32 wks, liquor- adequate (AFI-12) , 2nd twin breech dead ,approx gestational age 24 wks. Placenta was Diamniotic Monochorionic situated fundo –anteriorly. No obvious congenital abnormality seen in the surviving twin. Second and third Ultrasound done at 34 wks and 37 wks of gestation showed normal growth of the 1st twin with adequate liquor, with dead fetus in situ. Doppler study was normal. Mother was given two dose of injection betamethasone (12mg), 24 hrs apart at 33 wks of gestation. Fetal Biophysical profile was done of the surviving twin twice weekly and revealed no abnormality. Lower segment caesarean section was done on 08.07.2013 at 38wks of gestation, under spinal anaesthesia –a living 2.25kg girl baby born with good Apgar score. After rupturing the second sac a thick pea soup colored non foul smelling liquor was drained out. The macerated fetus weighing approximately 400gms was delivered. Placenta weighed 600gm. There was no obvious abnormal vascular anastomotic channels and fetal abnormalities seen. Placenta showed Diamniotic-monochorionic pattern. Baby was sent to mother side after full evaluation by the neonatologist. UGS brain of the baby showed no abnormality. Mother and the baby were discharged on 8th post operative day. Regular follow up of the baby was advised from neurological point of view.

DISCUSSION: Twin pregnancy is seen at rate of approximately 1: 250 and perinatal morbidity and mortality is increased in these pregnancies. Death of a twin in the first trimester is a frequent event, but it rarely complicates the pregnancy. Despite this, death of a twin in second or third trimester can cause fetal and maternal complications that can create high-risk problems for the perinatologist in management. One of the major problems is disseminated intravascular coagulation that can affect the mother and the other twin and this can result in neurological and renal damage in the surviving fetus. If the placenta is monochorionic these problems are frequent and severe, but in dichorionic twins without the rare existence of vascular anastomosis the problem is extremely unlikely. The risk of still birth is high with monochorionicity, non-western origin, assisted reproductive techniques (ART) [3]. The fetal complications are more with monochorionicity in monozygotic twins. [3, 4, 5]. MCDA twins are considered high risk by virtue of their 3- to 5-fold increased perinatal morbidity and mortality compared to dichorionic (DC) twins. This is largely attributed to twin–twin transfusion syndrome (TTTS), which occurs in 15%–20% of MCDA twin pregnancies, and discordant intrauterine growth restriction (IUGR), which complicates an additional 25% [1, 6-9]. The situation is entirely different in dichorionic pregnancies, in which remaining twin will be spared following death of its co-twin [10]. Incidence of death of one of fetus of twin gestation, in-utero is 2.7% in second trimester and 6.7% in third trimester. [11] Different anastomotic channel are seen – artery to artery, artery to vein, vein to vein. Complication that occurs are twin to twin transfusion syndrome, discordant twin, cerebral palsy, porencephaly microcephaly, multicystic leukomalacia [12-13]. Neurological damage is most likely caused by ischemic necrosis leading to cavitory brain lesions. In the donor twin ischemia results from hypotension, anaemia, or both [14]. Risk of acute twin to twin transfusion is 25 %. [11]. It starts immediately after death of fetus, appears in USG or MRI after 4-6 weeks. It occurs only in monozygotic twins with monochorionic placentation and is commoner in artery to vein communication. Intrauterine DIC is rare. Maternal complication is rare if fetus is dead before 34 wks of gestation, very rare before 17 wks of gestation.

Brain damage in the surviving twin occurs within 2-5 weeks following death of the co- twin. Fetal MRI is very useful in such cases but required experienced radiologist.

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CONCLUSION: Management of twin gestation with death of a co-twin in the absence of maternal complications is conservative. Multidisciplinary approach to be applied including periodic fetal Biophysical profile, maternal coagulation profile, intensive neonatal care unit. Our case presented with 32wks of twin pregnancy with one intrauterine demise. Patient and relatives were counselled about the fetomaternal outcome. We continued her pregnancy conservatively till 38 wks. A girl baby weighing 2.25kg delivered by LSCS with a macerated baby. Mother and baby were discharged without any complication. Multidisciplinary approach can reduce the incidence of adverse fetomaternal outcome in such cases.

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Figure 1: Twin with one macerated fetus

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