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# MULTI FETAL GESTATION WITH SINGLE FETAL DEMISE: CHALLENGES IN MANAGEMENT- SERIES OF THREE CASES

Gynaecology

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## ABSTRACT

Multiple gestation with single fetal demise in late second and early third trimester is not uncommon. Management is burdened with dilemmas due to complications to the mother and surviving twins with continuation of pregnancy.

We report three cases, 33 years G8P1L1A6 at 29 weeks, 35 years G3P1L1A1 at 29 weeks+3 days dichorionic twin gestation complicated with one twin demise with previous caesarean, 25years G2P1L1 at 32 weeks+3 days with triplets with IUD of one fetus. After baseline investigations ruled out complications, a decision was taken to manage expectantly in hospital after counseling and obtaining consent. Case-1 went into preterm prelabour rupture of membranes Case-2 in view of unknown scar integrity in labour, Case-3 triplets in labour were indications for emergency caesarean.

All the surviving babies had good neonatal outcome.

These cases highlight the fact that individualization of treatment during Antenatal period leads to good neonatal outcome in surviving twin.

## KEYWORDS

case series, multifetal gestation, single fetal demise

## INTRODUCTION

Multi fetal gestation with single fetal demise is not uncommon. Incidence being 2.7% in twin and 4.3% in triplet pregnancy.[1] The management is complicated when the demise occurs in late second and early third trimester. Walking on a tight rope aptly describes management of this complex situation. The optimal obstetric management involves balancing the risk of extreme prematurity in the surviving fetus verses development of complications in the mother and the live fetus with continuation of pregnancy. The complications in the surviving fetus are intrauterine growth restriction, neurological abnormality, prematurity due to preterm labour and perinatal mortality. The risk of neurological abnormality in the surviving monochorionic and dichorionic co-twin is 18% and 1%, respectively. The risk of preterm delivery is 68% and 57%, respectively. Following the death of one twin, the risk of monochorionic and dichorionic co-twin demise was 12% and 4%, respectively.[2,10] The probable causes of complications and death in the surviving twin may be due to haemodynamic fluctuation, transchorionic embolisation and coagulopathy.[3]

Maternal complications include maternal coagulopathy, the most feared complication following twin demise, preeclampsia could also be cause of foetal demise and psychological stress. The prognosis of surviving co-twin is mainly compromised by prematurity and its consequences. It is relatively good in dichorionic twins, and immaturity is the main risk factor where as in monochorionic twins, the prognosis is poor and may be associated with neurological damage in the survivor.[3]

We here by present 3 cases of multiple gestation with single fetal demise in late second and early 3rd trimester managed in our setup in tertiary centre in the month of February- March 2017

### Case 1-

33 years old G8P1L1A6 at 29 weeks+1 day period of gestation, a case of DADC twin gestation with a single fetal demise with leading surviving twin in cephalic presentation. Her complete blood count , liver function test, renal function test and coagulation profile were all normal. After ruling out complications, counselling and obtaining consent, patient was planned for conservative management. Steroid was given for fetal lung maturity. Antenatal fetal surveillance was done using AFI, BPP biweekly, NST and daily fetal kick count were maintained. The pregnancy was prolonged by 3 weeks + 1 day. Decision was taken to terminate pregnancy by LSCS in view of preterm pre labour premature rupture of membranes with previous LSCS not in labour, associated risks of prematurity, bad obstetric history, increased risk of infection and sepsis. Twin 1- Adequate clear liquor was drained, extracted preterm female baby as vertex presentation with Apgar score of 9/10, 9/10 and baby weight 1.4 kg. Twin 2 - Tobacco colour liquor drained, extracted dead female fetus of 340 grams. The neonatal outcome of the surviving twin was good. Foetus and the placenta was sent for HPE but due to autolysis no additional information regarding cause of death obtained.

### Case 2-

35 year old G3P1L1A1 at 29 weeks +3 days period of gestation with previous LSCS with DADC twin gestation with a single fetal demise at 21 weeks of gestation with leading surviving twin in cephalic presentation. Her complete blood count, liver function test, renal function test and coagulation profile were all normal. After ruling out complications, counselling and obtaining consent, patient was planned for conservative management. Steroid was given for fetal lung maturity. Antenatal fetal surveillance was done using AFI, BPP biweekly, NST and daily fetal kick count were maintained. The pregnancy was prolonged by 6 weeks. She went into spontaneous labour at 35 weeks in view of unknown scar integrity, decision was taken for emergency caesarean. Twin 1- Adequate liquor and grade 2 MSAF drained, extracted preterm male baby as vertex presentation with Apgar score of 9/10, 9/10 and baby weight 2.77kg. Twin 2 - extracted as a complete sac macerated male fetus of 520 gm and placenta was small degenerated, The neonatal outcome of the surviving twin was good. Foetus and the placenta was sent for HPE but due to autolysis no additional information regarding cause of death obtained.

### Case 3

25 year old G2P1L1 at 32 weeks + 3 days period of gestation with monochorionic triplets with single fetal demise with leading surviving triplet in cephalic presentation. Her complete blood count, liver function test, renal function test and coagulation profile were all normal. After ruling out complications, counselling and obtaining consent patient was planned for conservative management. Steroid was given for fetal lung maturity. Antenatal fetal surveillance was done using AFI, BPP biweekly, NST and daily fetal kick count were maintained. The pregnancy was prolonged by 3 weeks + 2 day. Emergency LSCS was at 36 weeks done in view of triplet pregnancy with IUD of one fetus in latent labour. Sac1 and 2 were ruptured and a clear liquor drained, preterm babies in vertex position were extracted with Apgar score of 9/10, 9/10. The female babies weighed 1.67 and 1.69 kg respectively. Sac 3 was ruptured tobacco coloured liquor was drained and a dead macerated fetus as vertex was extracted weighing 1.2kg female fetus with skin peeling and softening of skull bones. The neonatal outcome was good for both the babies.

## DISCUSSION

It is observed that chorionicity rather than zygosity determines the risk of mortality and the morbidity. By determining the type of placentation by ultrasonography it helps us in predicting the outcome for counselling and management.[4,5]

The perinatal mortality of monochorionic twin pregnancies is double that of dichorionic twin pregnancies. In this study chorionicity was dichorionic in both the twin pregnancies and monochorionic in triplet gestation.

In this study the gestational age of single fetal demise was at 27-28 weeks of gestation, according to the study done by Kilby et al[7] it ranges between 23 - 32.5 weeks and usually 26 weeks. The mean gestational age of IUFD was 27 weeks as per study done by Agata et al[1].

Approximately 90% of twin pregnancies complicated with single intrauterine death deliver within 3 weeks from the time of diagnosis[16] andin this study mean duration was 4 weeks.

The mean gestational age at delivery was 33.6 ± 4.14 weeks as per Agata et al[1] and in Woo et al[3]; It was after 34 weeks and in the present study it is 34 weeks.

The mean birth weight of surviving neonates from the study done by Agata et al[1] was 2033 ± 880 grams and in present study it is 1880 grams and for IUD is 1087 ± 813 grams and in present study it is 687 grams. The rate of caesarean section has varied considerably (19%-92%) among the reported studies.[13,14] and there is no specific contra-indication to vaginal delivery.[15] Bell et al[12] have shown that an increased rate of caesarean section from 3.2% to 50.8%, does not lead to a significant reduction in perinatal mortality or morbidity. In this present study all cases were delivered by caesarean.

Petersen et al[11] and Santema et al[6] concluded that the main problem for the surviving twin was prematurity. Also reported prematurity as a main cause of neonatal death.

In our study there were no maternal and surviving neonate complications. Landy and Weingord[8] have cited an incidence of maternal DIC of 25%, which is similar to the figure reported by Pritchard and Ratnoff.[9]

Santema et al[6] have argued that other than chorionicity, histology is not informative, because of the extensive secondary changes caused by the dead foetus. Low rate of observation could be due to the collapse of chorionic vessels of the dead foetus, thus making the recognition of vascular communications difficult to identify cause of death. Post-mortem examination should be arranged, but in most instances, it does not reveal any cause, because the foetus is macerated and the tissues are autolysed.

**Conclusions :** These cases highlight the fact that individualization of treatment during Antenatal period leads to good maternal and neonatal outcome in surviving twins. There should be more prospective research to inform decision-making and evaluate and control the potential maternal and fetal risks.

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