Medical and Research Publications
International Open Access

Case Report **Journal of MAR Gynecology (Volume 4 Issue 4)**

Conservative Management in Single Foetal Death in Dadc Twin Pregnancy: A Case Report

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Received Date: January 09, 2023

Published Date: February 01, 2023

Introduction

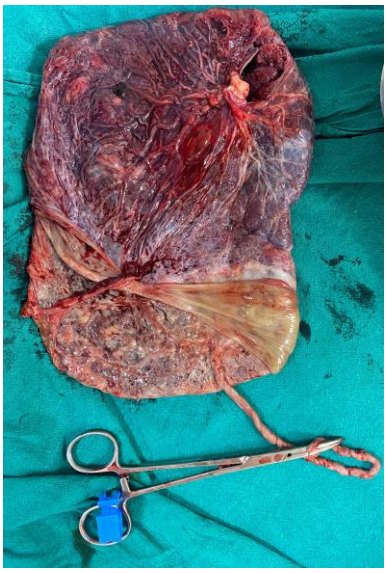
Incidence of multiple pregnancy has increased due to assisted reproductive techniques **[**1**]**. Multiple pregnancy accounts for 17% of all preterm births and 26% of low-birth-weight babies. Intrauterine death of single feotus in twin pregnancy during 2nd or 3rd trimester is uncommon and it causes psychological stress for patient and her husband. It also poses management challenge to obstetrician. Incidence of single foetal death in twin pregnancy ranges from 0.5-6.8% **[**2**]**. Death of one twin occurs in 1.1% of dichorionic twins compared to 3.6% in monochorionic twin. Foetal death during 2nd or 3rd trimester may increase the risk of preterm labours, IUGR, microcephaly, cerebral encepholomalcia, DIC, prenatal death of second twin **[**3**]**. Literature report shows high risk of vascular complication and therefore high risk of viseral and skin damage. Damage to CNS is major characteristic of 3rd trimester **[**4**]**. Majority of cases, it becomes difficult to know the exact cause and time for death.

Cause of death can include placental insufficiency, discordant growth, congenital malformation, twin -twin transfusion syndrome, placental abruption, any kind of trauma. In general chronicity rather than zygosity will determine mortality & morbidity.

Case Report

Primigravida, 32 years aged, underwent IVF cycle at Indira IVF Noida Centre and conceived in first attempt. Twin pregnancy was going smooth until 20 weeks, when anomaly scan was done. When her next ultrasound was conducted at 24 weeks it was diagnosed with one IUD. On ultrasound she had diamniotic dichorionic twin pregnancy of 24 weeks. The second foetus which died was with gestational age 21 weeks. Patient's attendants were counselled about patients condition and risk to mother and foetus were explained and she was managed conservatively with monitoring of coagulation profile and ultrasound every fortnight. Patient was admitted at 32 weeks for cesarean section. (On request) as she had deranged FDP and D-dimer. Patient underwent lower segment c-section. Preterm baby of 1.5 kg was born. After extraction of placenta, dead fetus approx 20 cm in length connected by rudimentary umbilical cord to small, calcified placenta. The placenta and mummified fetus were sent for antomo-pathological examination. The preterm baby was kept in NICU for duration of 15 – 20 days after which it was discharged in healthy condition.

Foetus Papyraceus



Placenta of Both Twins

Discussion

In this report its shown that conservative management can be successful in case of single foetal death in twin pregnancy in second trimester. Enbom has reported that the incidence of twin pregnancy with single intrauterine death ranges from 0.5-6.8%. Prognosis will depend upon gestational age at which demise occurs, chronicity irrespective of amniocity. Single foetal death after 14 weeks especially after 20 weeks will cause adverse outcome on surviving foetus.It can cause complication on surviving foetus like pematurity , IUGR, neurological morbidity of surviving foetus, pre-eclempsia, haemorrhage, sepsis **[**5**]**. Prognosis of surviving foetus is worse in monochorionic pregnancies regardless of amnionicity. The cause is not clear but it can be due to presence of vascular anastomosis that can lead to thrombotic substance released by dead foetus into circulation of surviving foetus which can cause hypotension, hypo- perfusion, hypoxia, acidosis, anemia, ischemic injuries in central nervous system **[**6**]**. Causes of intrauterine death includes twin twin transfusion syndrome, velamentous insertion of cord, true cord knot, congenital anomalies, IUGR. Maternal complication include association between retention of dead foetus in uterus and maternal DIC was first noted by Werner et al in 1950 and substantiated by Pitchard and Ratnoff. They described principal defect as gradual reduction in maternal fibrinogen level especially if time interval from intrauterine death to delivery exceeds 5 weeks. DIC can progress in slow and chronic manner and returns to normal after 48 hours of delivery. Till now there is no definite gestational age for interpretation of pregnancy after death of one foetus in twin pregnancy. Foetal death in first trimester is not associated with adverse outcome but 2nd and 3rd

trimester are at increased risk. Conservative management is advised when gestational loss of one foetus occurs at non-viable gestation of other **[**7**]**. Dichorionic pregnancies must be carried upto 38 weeks when both maternal and foetal wellbeing is assessed unless obstetric indication for termination. Close monitoring is required in such cases. Foetal well-being is monitored with weekly ultrasound evaluation of biophysical profile of the live twin and maternal kick count as maternal kick reduction to less than 10 occurs 24 hours before demise and can have informed immediate delivery. Doppler USG of peak systolic velocity in MCA is good parameter for anaemia. Normal umbilical artery doppler pulstality index is best prognosis.For maternal mortality coagulation blood tests are recommended.

Foetus papyraceous occurs when foetus dies in later pregnancy. Amniotic fluid and fluid content of dead twins tissue and placenta gets reabsorbed leaving the dead foetus compressed between amniotic sac of co twin and uterine wall. The degree of compression will depend upon time span between foetal death and delivery.

Conclusion

Primary concern for single foetal demise in a twin pregnancy is its effect on surviving foetus and mother. Regular antenatal care and ultrasound in pregnancy are needed to make diagnosis rapidly. Antenatal evaluation of chronicity by USG is important to assess potential risk.Regular antenatal care and used in pregnancy are needed to make diagnosis.Monitoring of surviving twin and coagulation profile of mother are crucial to manage complications. Proper counselling and management will result in successful outcome. All twin pregnancies with one dead foetus should be managed in tertiary referral centre with good neonatal support.

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