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INTRAUTERINE FOETAL DEATH IN MULTIPLE GESTATION: TO CONSERVE OR INTERVENE

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SUMMARY

There is an increasing incidence of higher order gestations especially due to fertility treatments, associated with higher morbidity and mortality. This is a case of a primigravida with triplet gestation with first foetal demise at 14 weeks who was referred for termination of pregnancy which she declined. Patient was on close follow-up with weekly ultrasounds. The second demise occurred at 21 weeks. At 26 weeks, patient was noted to have absent foetal movements and Doppler studies revealed a Restrictive Index (R.I) of 1 and Biophysical Profile (BPP) of 2/8.She was to be admitted for emergency hysterotomy but theydeclined. The third foetal demise occurred two days later. The patient was induced and delivered 3 macerated still births (MSBs). Grossly post-delivery umbilical cord entanglement. All the foetuses were male. Patient declined a post-mortem.

INTRODUCTION

The incidence of multiple gestations shows variations among different ethnic groups and geographical locations, for instance, twin pregnancies among the Yoruba of Nigeria was found to be four times that of Caucasians (1). A multiple pregnancy may be the result of the fertilisation of a single egg that then splits to create identical foetuses, or it may be the result of the fertilisation of multiple eggs that create fraternal foetuses, or from both (2). Higherorder gestations are multiple pregnancies with three or more foetuses; the incidence of which has increased due to fertility treatments (3) The higher order pregnancies are associated with a higher risk of morbidity and mortality as compared to singletons or twin pregnancies, because these have a higher risk of preterm deliveries (3).

CASE REPORT

Patient D. was a 24-year-oldprimigravida who had a triplet gestation. She had foetal demise 14 weeks gestation and seen during her 16th week of gestation. The principal reason for referral was for pregnancy termination, which the couple declined. Counselling on benefits and risks of their option were discussed with the Obstetrician, and the consensus was conservative management until foetal viability for the other two foetuses was feasible. Weekly serial coagulation profiles, liver function tests, kidney function tests, anticardiolipins, antiphospholipid factor, VDRL and indirect Coombs test were all negative. Weekly ultrasounds were performed.

During the 21st week, the second twin was noted to have succumbed. The mother had no obstetric complaints and they still declined to have the pregnancy terminated with the hope the last male foetus would survive. She was seen on a weekly basis, and continued the pregnancy uneventfully with foetal movements felt, vital signs normal, investigations still reportedly normal, and in the following month had gained three kilograms.

Her last review in the clinic was at 26 weeks, the mother complained of absence of fetal movements and an ultrasound done showed on doppler studies an RI of 1 with a BPP of 2/8. Counselling on the need to terminate the pregnancy for increased chances of survival of the last foetus was done but the spouse and relatives were unvielding to admission or any intervention and opted for conservative management. This decision was strongly influenced by the families' socio-cultural conviction that being a male foetus he would survive. Two days later she was admitted in hospital with per vaginal discharge, foetal demise confirmed and induction done.At delivery it was noted that there were cord entanglement between the two macerated foetuses that had died earlier, with the third one also having cord around the neck and they weighed 200gm, 450gm and 1100gm respectively. The placentation was dichorionic diamniotic and weighed 500gm. The three foetuses were males.

Bereavement counselling and debrief of the couple and mother- in- law was done. They declined to have post-mortem opting for a traditional burial ceremony but agreed to have pictures taken for their memorabilia. The immediate post-delivery and puerperium for the mother was unremarkable and the patient was given subsequent counselling sessions, anti- lactation management and provided contraception on the sixth week.

Figure 1 Fresh still birth at 28 weeks



Figure2

cord entanglement noted between the two foetuses and on one around the neck, they shared an amniotic sac and succumbed early in pregnancy



DISCUSSION

Both the rate and the number of twin and higherorder multi-foetal births have increased over the past 2 decades as a result of increased use of fertility enhancing drugs and Assisted Reproductive Therapy. In North America the rate of spontaneous triplet conception occurs in 1:8000 conceptions. In literature, there are a few factors listed to be possible causes to intrauterine foetal death: intra uterine growth restriction, pre-eclampsia, twin to twin transfusion syndrome (TTTS), and twin reversed arterial perfusion (TRAP). Early intra uterine foetal death less commonly results in complications. It rarely occurs in the second and third trimesters. The prognosis for the surviving twin depends on the gestational age at the time of the demise, the chorionicity, and the length of time between the demise and delivery of the surviving twin.In a review by Ong et al, odds of monochorionic twin death following single-twin death after 20 weeks of gestation was six times higher compared with dichorionic twins(7). The neurological prognosis for a surviving co-twin depends almost exclusively on chorionicity. In their comprehensive review, Ong and colleagues (2006) found an 18-percent rate of neurological abnormality with monochorionic placentation compared with only 1 percent with dichorionic placentation.

In the African culture a lot of emphasis is laid on having a boy child so the loss of three boys at a go is considered a great loss. Culturally boys are welcomed at birth with traditional pomp and mothers are treated with an elevated status; he inherits ancestral land and by bearing his own children allows the bloodline of the family to continue. Girls are expected to be married off and become part of their husbands family. In Kenya this has necessitated legislature to be put in place to protect the rights of the girl child (8).

During the serial ultrasounds done in this pregnancy, the couple had known the sex of the foetuses and attended prenatal care with due diligence. The presence of medical technologies including the evolved ultrasound has enabled sex determination to be made in utero with increased accuracy. Mothers are demanding more to know the sex of their foetuses and no longer the adage reserve for genetic diseases and sex differentiation disorders (9). Empathetic care and respect for sociocultural practices including gender roles particularly in African communities must be in -cooperated in delivery of antenatal, intrapartum and postnatal care (10). Unfortunately some of the obstetric interventions maybe rejected by couples and their families based on the foetal sex posing as a clinical dilemma towards evidence best practices and raises salient questions as to who becomes accountable for the unborn child's outcome despite being under skilled Institutional care (10,11,12).

This case despite demonstrating an adverse foetal surveillance report, relatives declined the mother's admission or any intervention. This culminated in foetal demise of the third foetus; they also declined a post-mortem to accord the foetuses traditional burial rites. Forensic autopsy is crucial for determination of the cause of death (13). In light of these facts, the controversial issue of whether to conserve and continue the pregnancy knowing the prognosis and outcome arises.

In conclusion, socio- cultural factors still play a key role in patient management and in our case above it may have delayed early intervention.

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