

SALVAGING TWIN 2 AFTER ABORTION OF TWIN 1: A CASE REPORT.

* J.U.E Onakewhor, * O Ohiosimuan, ** A.N Onyiriuka

*Departments of *Obstetrics and Gynecology and ** Child Health, University of Benin Teaching Hospital, Benin City. Nigeria.*

ABSTRACT

We present intentional delayed delivery of twin 2 after a spontaneous membrane rupture and abortion of twin 1 in a dichorionic twin pregnancy at 14 weeks.

As signs of infection were missing, we adopted a conservative (not expectant) management. The pregnancy was prolonged to 35 weeks' gestation.

In the absence of additional risk factors, the role of conservative management of multiple pregnancies after loss of one fetus in prolonging the pregnancy to fetal viability in resource-poor setting is highlighted. The gained gestational age of 20 weeks and 4 days (144 days in all), for the remaining fetus and the healthy mother and child pair after delivery at 35 weeks are discussed. The perinatal, economic and psychological implications are highlighted. The importance of good clinical assessment in the diagnosis of cervical incompetence and using ultrasound scan as a complimentary instrument is emphasized.

Key words: Abortion Twin 1, Salvage Twin 2, Cervical cerclage.

(Accepted 21 June 2006)

INTRODUCTION

Though Nigeria has one of the highest incidences of twin gestation, increasing use of assisted conception technique in the management of infertility has led to increasing frequency of multiple pregnancies worldwide. Multiple pregnancies are associated with higher maternal and fetal risks than a singleton pregnancies.¹ Preterm labor and preterm rupture of membranes (PROM), are significantly increased complicating 1-2% of all twin pregnancies² with its attendant high neonatal morbidity and mortality due to prematurity. The delivery of one twin most often results in expulsion of the second twin. With PROM, there is a great risk of chorioamnionitis.¹ The survival of remaining fetus after premature death and delivery of one fetus poses a lot of challenge to the Obstetrician. Treatment in such situations is usually difficult and often controversial because of simultaneous presence of a live and/or healthy fetus and the possible risk of infection /chorioamnionitis in the mother.¹ The treatment options may either be immediate delivery of the remaining twin, expectant management with watchful expectancy or invasive management with cervical cerclage. Delayed delivery or prolonged-interval of delivery of second fetus after premature delivery of the first fetus can improve neonatal outcome. Under careful monitoring, such management option poses minimal maternal risk^{1,3}.

CASE REPORT

Mrs. N. L. was a 30-year old, Gravida 5 Para0¹⁴ woman who booked her index pregnancy on October 10, 2000. She has had two premarital mid-trimester induce termination of pregnancies in 1989 and 1992 (both at 12 weeks). In 1999, she had two spontaneous abortions; the first at 16 and another at 14 weeks. Her Last Menstrual Period was 11.1.2000 and the expected date of delivery was 18.10.2000. She was 7 weeks pregnant. Her other booking parameters were essentially normal. She had her routine haematinics and anti-malarial prophylaxis and was given 4 weeks appointment for follow-up. The medical officer who booked her index pregnancy at the Saint Philomena Catholic, Hospital Benin City, apparently missed the diagnosis of incompetent cervix. However, the ultrasound scan done at 7 weeks confirmed viable dichorionic, diamniotic twin pregnancy without evidence of cervical incompetence. Due to her anxiety of the two previous spontaneous abortions she did another scan at 9 weeks on her own request. The findings were the same as the former one. The pregnancy was uneventful until 14 weeks and 3 days when she presented with a 6-hour history of painless premature pre-term spontaneous rupture of fetal membranes (SRM) to which the attention of these authors on locum was drawn. PROM was confirmed on sterile speculum examination. There was no prolapse of the cord. Endocervical swab specimen was taken for microscopy, culture and sensitivity test. The culture yielded no growth after 48hours of

incubation. The full blood count was also within normal limits.

She was counseled and offered either immediate delivery or expectant management. She chose expectant management. She was admitted into the Gynaecological ward where she had prophylactic antibiotics with intravenous Augmentin (Clauvalinic acid potentiated amoxicillin) 1.2 g 12-hourly for 72 hours and intravenous Flagyl 500 mg 8 hourly also for 72 hours. These were followed up with Augmentin tablets 325mg 8-hourly and Flagyl tablets 400 mg 8hourly both for 5 days. She was counseled to have bed rest. Two hours, later she expelled the first twin; a male that weighed 100g without sign of life. The umbilical cord was then ligated with size 2 silk suture just below the external cervical os and the placenta left alone when she did not bleed. She was counseled to either have evacuation of the uterus of the second twin or have cervical cerclage inserted if the remaining fetus was viable. She chose the later option. The uterine contractions were aborted with Salbutamol (tocolytic) infusion.

Two ultrasound scans done three and seven days later confirmed a viable singleton pregnancy with moderate liquor and a dilated internal cervical os of 2.6cm. At the end of one week of uneventful admission when there was neither bleeding nor discharge per vaginam, she had a Macdonald cervical stitch inserted using 35 mm Merselen tape with bites at 1,11,7, and 5 O' clock positions. This was carried out under Salbutamol (tocolytic) infusion. The stitch was knotted at 1 O' clock position on the cervix.

Postoperatively, she had Salbutamol tablets 4 mg 8 hourly and her routine haematinics through out the period of the antenatal care. She was discharged to the antenatal clinic for follow-up after one week of uneventful admission post-operatively. She had two doses tetanus toxoid immunization. The ultrasound scans done at 26 and 35 weeks were essentially normal with only one identifiable placenta.

At 35 weeks, she complained of severe pressure in the pelvis, waist pain and uterine contractions. There were no associated fever or loin pains. She was clinically examined and found to have weak irregular uterine contraction each lasting about 20 to 25 seconds. The renal angles were not tender on palpation. The cervical cerclage was removed by the third day when contractions became uncontrollable in spite of Salbutamol infusion. The cervical os was 3cm dilated and the membranes were intact. She had artificial rupture of the fetal membranes. Her labor was monitored using the partogram. Four hours later, she delivered a 2.65 kg live male neonate with

Apgar's scores of 8 and 10 in the first and fifth minutes respectively. The placenta was delivered with ease by controlled cord traction and it weighed 0.65Kg. There were no placental anomalies. Blunt endometrial curettage for the second placenta yielded no placenta tissue. The estimated blood loss was 150ml. The baby was examined by the pediatrician and he was normal. The baby was discharge home with the mother on the third day in normal conditions without the baby being admitted into the neonatal intensive care unit. The remaining period of the puerperium was uneventful for both mother and baby. The child is now 5 years old and his development has remained normal.

DISCUSSION

Some major complications typical of multiple pregnancies are PROM with preterm delivery, intrauterine death or IUGR of one of twins. These can occur during 2nd and 3rd trimester. Treatment in such situations is usually difficult and often controversial because of simultaneous presence of a live and/or healthy fetus and possible risk for mother.⁴ Watchful expectancy and invasive intervention are two documented ways of management of such cases, even though data on both interventions were scanty at the time of managing this case.⁵

Mrs. M.N had cervical cerclage; an aggressive interventional approach, with resultant prolongation of the pregnancy by additional 20 weeks and 4 days (144 days). A review of the literature showed that this is one of the longest periods of intentional delay delivery interval between twin 1 and 2 in twin pregnancy.⁵⁻⁹ This may be attributable to the prolonged use of tocolytic agent up to the time she presented with urinary tract infection which might have triggered the labor. In a unit like ours, with extremely poor neonatal facilities for preterm management, keeping the fetus in utero as long as possible with the aggressive approach as in this case in the absence of obvious clinical danger to both mother and fetus is beneficial both in terms of financial cost and burden on health facilities and personnel. The child is now 5 years old with no obvious clinical anomalies or mental retardation.

Her pattern of labor with the active phase lasting only 4 hours in a nullipara is a pointer to incompetent cervix the diagnosis of which was missed at booking. This highlights the need to take detailed past obstetric history in order not to miss the diagnosis of cervical incompetence at booking especially in our environment where late first or mid-trimester induced abortion is not uncommon as seen in this patient.

Though fetal salvage in preterm babies with very

low and extremely low birth weight babies in well-equipped units is improving in developed countries, it is at a huge cost. Mental retardation and children needing special educational assistance in this group are some of the prices which are of serious concern to the society. Thus an aggressive approach to delay the delivery of twin 2 after early abortion of twin 1 beyond 34 weeks in our environment should be the goal. That both mother and baby went home in good clinical condition obviously brought an unquantifiable psychological satisfaction to the affected couple and these clinicians.

CONCLUSION

This case is presented to highlight the importance of good clinical assessment in the diagnosis of cervical incompetence and using ultrasound scan as a complimentary instrument. Also highlighted, is the obvious benefit in conservative management with cervical cerclage to salvage twin 2 where early loss of twin 1 from abortion is due to cervical incompetence, especially in resource-limited settings with poor neonatal facilities. To our knowledge, this was the longest interval (gained gestational age) between deliveries in a twin pregnancy reported in Nigeria. This report, we hope, will add to the currently limited literature of a conservative aggressive policy with regard to pregnancy outcome after the early loss of a fetus from a twin pregnancy.

REFERENCES

1. **Bakos O, Cederholm M, Kieler H.** Very prolonged membrane rupture and delayed delivery of the second twin. *Fetal Diagn Ther.* 1998; 13(3):147-149.
2. **Ochsenbein-Imhof N, Hebisch G, Stallmach T, Breymann C, Huch A.** Two-stage delivery after spontaneous rupture of fetal membranes and delayed abortion of the first twin in conservative management. *Z Geburtshilfe Neonatol.* 2001; 205(4):152-155.
3. **Crombach G, Gohring UJ, Gunther W, Hamm W, Schmelzer M, Kribs A, Bolte A.** Prolongation of a primary twin pregnancy to the 31st week of pregnancy by surgical extraction of the 1st twin in the 17th week of pregnancy for umbilical cord prolapse. *Geburtshilfe Frauenheilkd.* 1993; 53(4):270-272.
4. **Poniedzialek-Czajkowska E, Leszczynska-Gorzalak B, Oleszczuk J.** Complications of multiple pregnancy in the 2nd and 3rd trimesters. *Ginekol. Pol.* 2000; 71(11):1435-1444.
5. **Abboud P, Gallais A, Janky E.** Intentional delayed delivery in twin pregnancy. Two additional cases and literature review. *Eur J. Obstet. Gynecol. Reprod. Biol.* 1997; 75(2):139-143.
6. **Chang HC, Wu MY, Ho HN, Yang YS.** Delayed delivery of surviving triplet after fetal reduction and spontaneous abortion. *J. Formos Med. Assoc.* 1996; 95(11):881-884.
7. **Feichtinger W, Breitenacker G, Frohlich H.** Prolongation of pregnancy and survival of twin B after loss of twin A at 21 weeks' gestation. *Am. J. Obstet Gynecol.* 1990; 163 (1 Pt 1):270-271.
8. **Padwick BB.** Delayed delivery of second twin after chorioamnionitis and abortion of first twin at 21 weeks gestation. *Eur J Obstet Gynecol Reprod Biol.* 2000; 93(1):109-110.
9. **Jazayeri A, Mamlok V, Dorsett MM, Porter KB.** Prolonged-interval delivery between the first and second twin. A case report. *J. Reprod. Med.* 2002; 47(2):167-169.