Nigerian Journal of Surgical Research
Vol. 6, No. 1 - 2, 2004: 56 – 58

CASE REPORT

Term quadruplet pregnancy: a case report

T. Ogunnowo, *O. Oluwole, C.O Aimakhu, A.O Ilesanmi and A.O. Omigbodun

Departments of Obstetrics and Gynaecology, and Anaesthesia, University College Hospital, Ibadan
Reprint requests to: Professor A.O. Omigbodun, Department of Obstetrics and Gynaecology, University College Hospital, Ibadan. E-mail: omigbodun@yahoo.com

Abstract
Higher order multiple pregnancies are rare and often associated with complications. Term delivery is uncommon. This is a report of a 22 years old G3 p^{2+0} (1 alive) teacher who had quadruplet pregnancy following ovulation induction is presented. She had elective caesarean section at term with the delivery of two live male and two live female infants with birth weights ranging between 1750gram and 2850grams. Term delivery in quadruplet pregnancy is possible as demonstrated in this case, and has the advantage of improved perinatal outcome. Bed rest early detection and management of antenatal complications, and planned elective delivery are probably the keys to a successful outcome.

Key words : Ovulation induction, quadruplets, term pregnancy

Introduction

Multiple pregnancies and in particular higher order multiple pregnancies (triplets, quadruplets, quintuplets) are high risk pregnancies with associated increases in maternal, fetal and neonatal morbidity and mortality. [1-4] Their frequency has been on the increase in the past two decades, mostly as a result of ovulation induction and assisted reproductive techniques for infertile couples. [1-5] The incidence of quadruplet pregnancy had traditionally been put at 1: 80[3] which translates into 1: 512,010 pregnancies, [3] although this may be higher in a place like south western Nigeria where twinning rates can be as high as 1: 22 births. [7] Higher order multiple pregnancies could be monozygotic, multizygotic or a combination of the two.[12] Theories of superfetation and superfecundation in the aetiology of multiple gestation are not of practical importance to the obstetrician. [13]

Preterm labour and delivery appears to be the commonest maternal complication, with the mean gestational age at delivery being 31 weeks in quadruplet pregnancies. [1, 3] Term delivery is rare occurring in less than 3% of such pregnancies. A literature search for papers from the West African Sub region did not reveal any previous publication on quadruplet or other higher order pregnancies. This report documents the case of a patient who carried a quadruplet pregnancy to term.

Case report

A 27years old teacher presented for booking at University College Hospital (UCH) Ibadan on 15th August 2001, following 19 weeks of amenorrhoea. Previously she had term singleton deliveries in 1995 and 1996, both at home. Her 1st child died on the 8th day of life from neonatal tetanus. She had a 5year history of secondary infertility after the second delivery. She consulted a private medical practitioner who prescribed clomiphene citrate for her. She got pregnant after the 1st course of treatment. An abdominopelvic ultrasound done after 16 weeks amenorrhoea confirmed a quadruplet gestation with fetal ultrasound parameters compatible with the stated period of amenorrhoea. There was no family history of multiple pregnancies.

When she registered for antenatal care at 19 weeks gestational age, she was a healthy looking young women, with height of 1.53 meters, weight 63kg and blood pressure 120/80mmHg. Urinalysis showed trace albuminuria. Her haematocrit was 31%, haemoglobin genotype AS and blood group, B positive. She was offered bed rest in hospital but she initially declined. She was admitted at a gestational age of twenty-two weeks and four days. Antenatal progress on admission was uneventful. She developed mild anaemia (haematocrit 27 %,) and mild pregnancy induced hypertension (PIH) at 27 and 36 weeks gestational age respectively. The diastolic blood pressure rose up to 105mmHg. She responded well to haematinics and conservative management of the pregnancy induced hypertension (PIH).Oral antihypertensive medications were not employed. Ultrasonography at 21 and 35

weeks were normal. The latter showed live quadruplet gestation (cephalic, cephalic, cephalic, breech) compatible with stated gestational age. The estimated fetal weights ranged from 1.9 – 2.1 kg. The placenta was fundal and posterior in location and the liquor volume was normal.

She had an elective lower segment caesarean section (ELLSCS) on 19/ 12/01 at a gestational age of 37 weeks and three days. Findings at surgery are as documented in table I .The babies were resuscitated by oro- and nasopharyngeal suctioning and ambu-bagging, with supplemental oxygen. She recovered from surgery without any complication and was discharged home on the 5th post operative day. She was seen at the postnatal clinic on the 30th of January, 2002. The babies showed satisfactory weight gain. Her blood pressure was 120/80mmhg. She was adviced to report at the family planning clinic for counseling on resumption of her menstruation.

Table 1: Findings at elective caesarean section

Baby	Sex	Birth weight (kg)	Apgar score	Presentation
1	Female	2.85	6, 10	Breech
2	Male	2.5	4, 10	Cephalic
3	Female	2.2	8, 10	Breech
4	Male	1.75	7, 10	Cephalic

Discussion

Higher order multiple pregnancies are increasingly being associated with assisted conception techniques like ovulation induction and in-vitro- fertilization (IVF) techniques. [1, 2, 4, 7] This is exemplified by the patient presented who had empirical ovulation induction without prior investigation as to the cause of her secondary infertility. The incidence of multiple pregnancies with clomiphene is between 5-10%. [10, 11]

The management of higher order multiple pregnancies entails early diagnosis, clinical monitoring, early institution of bed rest (home or hospital) and elective caesarean section delivery[2]. Successful outcome is better with a combined obstetric- neonatal approach and the experience of a perinatal unit. Combination tocolytic therapy to treat preterm contractions and insertion of a cervical cerclage may occasionally be necessary. [5, 9]

Term delivery in quadruplet pregnancies is rare because of spontaneous preterm delivery[8] and elective preterm delivery on account of complications like pregnancy induced hypertension and intrauterine growth retardation. [5] The patient presented surprisingly reached term without any instance of premature contractions. The good neonatal outcome obtained may possibly be related to the maturity of the fetuses and their relatively good birth weights. There was no occurrence of the often reported fetal complications like respiratory distress syndrome, bronchopulmonary dysplasia and intraventricular haemorrhage. The average birth weight of 2.33kg is far higher than the 1.615kg that was previously reported. [8]

In conclusion, quadruplet pregnancies need not always end in premature delivery as demonstrated in this case. Pregnancy can be carried to term with bed rest, fetomaternal monitoring, early detection and management of antenatal complications and judicious elective delivery.

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