

# Clinical Study of Complications in Twin Gestation

P. L. Bhanap\*, A. R. Mahale†

\*Associate Professor, Department of OBGY, I. I. M. S. R., Warudi, Badnapur, Jalna, Maharashtra, INDIA.

†Professor, Department of OBGY, M. I. M. S. R. Medical College, Vishwanathpuram, Latur - 413531, Maharashtra, INDIA.

\*Corresponding Address:

[pbhanap@gmail.com](mailto:pbhanap@gmail.com)

## Research Article

**Abstract:** A retrospective study of twin pregnancies was done for a period of 6 months from 1<sup>st</sup> July 2001 to 31<sup>st</sup> December 2001 at labor and delivery ward admissions at Government Medical College, Nanded. Total 185 cases analyzed for obstetric and neonatal complications studied. Anemia was found universal. Prematurity was common. Dreaded complications like undelivered second twin was also encountered. Low birth weight and prematurity were less common in unregistered pregnant women.

**Key words:** twin pregnancy, multifetal gestation, complications in twin, chorionicity of twins, discordant twins.

## Introduction

The human female is propagated by nature to nurture one fetus and to take care of one neonate at a time. It is evident in fact that twins are rare in occurrence, about 1 in 80. In some communities, women who give birth to multiple babies are considered supermoms-which have greater capacity to reproduce and rearing. Unfortunately, having multiple babies exposes a woman and fetuses to many complications, sometimes unique, which pose a threat to life of carrying woman and baby in the womb too. Now a days, iatrogenic multiple pregnancy is also on rise. In India, incidence of twin is considered to be almost 1 % of total deliveries. Considering this, a retrospective study for the duration of 6 months i.e. 1<sup>st</sup> July 2001 to 31<sup>st</sup> December 2001 was done at labor and delivery admissions at Department of OBGY, Government medical college, Nanded. Public health concerns related to much increased incidence of multifetal pregnancy is yet to take place in India.

## Materials and Methods

A retrospective study for the duration of 6 months from 1<sup>st</sup> July 2001 to 31<sup>st</sup> December 2001 was carried out. All cases were twin deliveries at department of OBGY, Government medical college, Nanded. A total of 185 cases were reviewed. Case papers were studied. Diagnosis whether intrapartum or antepartum noted. Complications regarding registered and unregistered meaning women who did not receive any antenatal care noted. All neonates who were low birth weight were admitted to neonatal intensive care units (NICU) and followed. Data related to maternal age, parity, duration of pregnancy, nature of conception – spontaneous or assisted, use of ovulation inducing agents, maternal

medical and obstetrical complications, fetal discordancy, congenital anomalies, presentation of both fetuses was collected in proforma. Information regarding mode of delivery and neonatal outcome noted. Gestational age was determined from date of last menstrual period, if known. Intrauterine growth restriction was noted if values fall below 2 standard deviation. Very low birth weight was defined as weight below 1500 grams. Low birth weight as below 2000 gms. Low APGAR score of < 7 at 1 minute and 5 minutes was considered criteria for birth asphyxia. Signs of sepsis in neonate were also noted. Data related to maternal and perinatal outcome was analyzed in percentages.

## Results

During period of 6 months from 1<sup>st</sup> July 2001 to 31<sup>st</sup> December 2001, there were 3240 deliveries in total including 185 twin deliveries, giving an incidence of 5.7 %. The distribution of cases shows maximum numbers of women were in fertile age group i.e. 20 to 30 years. Women in the study group were both primi as well as multipara. 98 % were from low socioeconomic status while 42 women were having pregnancy for the fourth time (grand multipara). Only 42 women (22.7 %), were knowing before they had labor pains that they were carrying two fetuses, a majority were unaware. Ultrasonography was used for intrapartum confirmation. Only 6 women were full term (3.24 %). Majority women delivered preterm. Anemia was found in 100 % women. No woman gave a history of treatment for infertility. Pregnancy induced hypertension was there in 35.33 % women of these, 4 women had eclampsia, 3 had severe preeclampsia and 5 had abruptio placentae. See Table 1.

Table 1: Hemorrhages in twin pregnancy mothers

Antepartum hemorrhage	06
Placenta previa	01
Abruptio placentae	05
Retained placenta	03
Postpartum hemorrhage	13
Blood transfusion	20
Only 1 transfusion	14
2 transfusions	05
More than 2 transfusions	01

Onset of labour was spontaneous in all women. 74 % women delivered vaginally. Cesarean section was done for pregnancy induced hypertension, previous cesarean section, first fetus amongst twins with non vertex presentation, undelivered second twin. 6 women had antepartum hemorrhage – out of which 1 had placenta previa and the other 5 had abruption placentae. 3 women had retained placenta and 13 (7 %) had postpartum hemorrhage. 20 women required blood transfusion – 14 required just one unit, 5 required 2 while just one woman required more than 2 units. There was no maternal death. We had 7 cases of undelivered second twin meaning cases presenting to our department after delivery of first twin at some other hospital- either primary health centre or rural hospital or some private hospital. Duration of 90 minutes to 8 hours was found before they reached our department (labour room). Of these 7, cesarean section was done in 4 cases while vaginal delivery was possible in 3 women. Of these 7, two had vertex presentation, 1 was breech while 4 were having transverse lie. We had 4 live births and 3 still births amongst these. See table 2.

**Table 2:** Undelivered second twin presentations

Vertex	02
Breech	01
Shoulder	04

There were 31 (16.75%) cases of discordant twins meaning a birth weight difference of equal to or more than 10 %. Of these, 19 were dichorionic and 12 were monochorionic. 7(3.78%) babies had congenital anomalies – 2 had CTEV, 2 with diaphragmatic hernia, 1 each had meningocele, visceroptosis, cleft lip with palate and hydrops. There was birth of one thoracopagus twin, it was a still birth. 75% babies required NICU admission. 37 % of total were having very low birth weight had many complications like septicaemia, respiratory distress and severe birth asphyxia. There were total 60 neonatal deaths and 12 still births. Antenatal care reduced number of babies with very low birth weight (See table 4).

**Table 3:** Gestational age at birth in twins

Gestational Age	Number of parturient women delivered
< 26 weeks	09
27 – 32 weeks	64
33 – 36 weeks	106
> 36 weeks	06

**Table 4:** Significance of antenatal care in preventing low birth weight in twins

Status	Very low birth weight	Low birth weight	Normal birth weight
ANC Care	12.3%*	60.9%\$	26.8%#
No ANC Care	25.5%*	48.6%\$	25.9%#

\*P = 0.005 \$ P=0.5 # P = 0.9

## Discussion

Since many years, studies note that incidence of twins is approximately 1 %. Present study has higher incidence because the place where it is conducted is a tertiary level teaching hospital where many cases are referred from rural adjoining area for better management. Anemia was found in all women. Reasons could be multiparity, low socioeconomic status, increased iron demand because of multiple pregnancy and unregistered status i.e. no antenatal care at all. Shockingly, 77 % women did not know that they were carrying twins. Those days (2001) ultrasonography was not so readily available as today. The situation has changed today, such occurrences are unheard today. The incidence of pregnancy induced hypertension was almost double that of normal singleton pregnancy. Reasons could be the same as that of anemia in addition to hyperplacentation. Much to the awe, many women in this study are found to be unregistered; throwing light on the fact that antenatal care was yet to reach the poor and needy. Similarly, patients reporting late for undelivered second twin considering it as retained placenta, unaware of the fact that they are carrying undelivered second twin pose considerable threat to life of woman herself and the unborn fetus. The fact that incidence of low birth weight babies could not be reduced by antenatal care was evident but at the same time it became clear that antenatal care significantly reduced number of very low birth weight babies. Overall perinatal mortality was 19.45 %. Reasons for this are extreme prematurity, birth asphyxia, congenital malformations and septicaemia.

## Conclusion

While on one side, technical advances like improved neonatal care does reduce perinatal morbidity and mortality, we still face problem of unregistered pregnant women surprisingly coming to know during labor that they are carrying twins. Antenatal care definitely reduces incidence of very low birth weight babies in twins. Good antenatal care, judicious use of tocolytics and steroids for fetal lung maturity, cerclage to prevent preterm birth may help reduce neonatal complications. Although maternal complications like anemia, pregnancy induced hypertension and hemorrhages may not be prevented but if detected on time, they will be taken care of effectively thereby reducing maternal morbidity and mortality. Social changes like increased awareness about early registration of pregnant women have contributed much to reduce such events.

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*Address for correspondence:*

**Dr. P. L. Bhanap**

Associate Professor, Department of OBGY

**Address:** E-004, Khinvsara woods, Ulkanagari , Aurangabad, Maharashtra, INDIA.

**Email:** [pbhanap@gmail.com](mailto:pbhanap@gmail.com)