

# Complications of Multiple Gestation

R ASHRAF A GUL R NOOR S SIDDIQUE

Department of Obstetrics and Gynaecology, Lahore General Hospital Lahore  
Correspondence to Dr. Razia Ashraf, Senior Registrar

A Total of selected 50 Patients with Multiple Pregnancy were Studied. The aim of the study was to see the complications of multiple gestation. It was concluded from the results that most common complication is Preterm labour (54%) anemia (38%) Pregnancy induced hypertension (32%) Preterm Premature rupture of membranes (12%) and antepartum haemorrhage in (6%). Fetal Complications were prematurity and low birth weight.

**Key words** Multiple gestation, preterm labour, anemia, pregnancy induced hypertension

Multiple gestation results from the ovulation and subsequent fertilization of more than one oocyte. In such cases the fetuses are genetically different (dizygotic). Multiple gestation can also result from the splitting of one embryonic mass to form two or more genetically identical fetuses (monozygotic). If splitting occurs after 12<sup>th</sup> day it results in conjoined twins.

The incidence of spontaneous multifetal (more than two) pregnancies is 1 in 80<sup>n-1</sup> pregnancies. In recent years assisted reproduction techniques such as ovulation induction and in vitro fertilization have become very important causes of multiple pregnancies and about 20 percent assisted reproduction pregnancies are multiple<sup>1</sup>.

Incidence of twin pregnancy account for 1 percent of all pregnancies with two third being dizygotic and one third monozygotic. Incidence varies with ethnic group, maternal age and parity<sup>2</sup>. Zygosity can only be determined by DNA finger printing. Prenatally such testing would require invasive techniques like chorion villus sampling, amniocentesis and cordocentesis. Chorionicity can be determined by ultrasound<sup>3-4</sup>.

The history of multiple pregnancy is very old. The old statement is about Isaac's wife Rebekah, who conceived after 19 years of marriage. Twin boys were born. The study of twins began in late 1800s and Sir Francis Galton was Pioneer in studying twins.

Multiple gestation is a high risk pregnancy. Perinatal mortality rate in twins is around six times higher than singleton. Multiple Pregnancy still represents a major obstetric and perinatal challenge. It is associated with multiple fetal and maternal complications. Maternal complications like hyperemesis gravidarum, spontaneous abortions, anemia Pregnancy induced hypertension, preterm labour, antenatal hemorrhage, pressure symptoms due to over distention of uterus, malpresentation, cord prolapse, death of second twin during labour, locked twins, postpartum hemorrhage, puerperal pyrexia and post partum depression.

Fetal complications included intrauterine fetal death of one fetus, twin to twin transfusion syndrome, congenital malformations, intra uterine growth retardation and fetal malpresentation.

## Aim of the Study

The aim of the study is to study the fetal and maternal complications of multiple gestation.

## Patients and Method:

The study was performed in the Obst/ Gynae department of Lahore General Hospital Lahore in year 2003. This included both booked and unbooked patients. Patients were assessed by history, clinical examination and relevant investigations and management was done accordingly.

There were total 3143 deliveries during the study period in obstetric and Gynecology department of Lahore General Hospital. Out of these 50 patient had multiple pregnancy, 47 with twin pregnancies and 3 with triplet pregnancies. The prevalence of multiple pregnancy was 1 in 63 births or 1.6%.

Table 1 Prevalence of Multiple Pregnancies

Total	Patients
Total Number of Deliveries	3143
Multiple Births	50
Twins	47
Triplets	3

Sixteen (32%) patients were booked and thirty four (68%) were unbooked. The prevalence of multiple pregnancy was highest in mothers of age between 25-30 years and multiparous women. Fifty four percent women delivered before 37 completed weeks.

Table 2. Patient Distribution according to Parity (n = 50)

Parity	n=	%age
Primigravida	15	30
G <sub>2</sub> - G <sub>5</sub>	28	50
Above G <sub>5</sub>	7	14

The most common ante natal complications were preterm labour (54%) anemia (38%) pregnancy induced hypertension (32%) and preterm premature rupture of membranes in (12%) of patients.

Major post partum Complication was post partum hemorrhage in 14% of patients. The rate of vaginal delivery was 64% and 36% patients had caesarean section.

## Complications of Multiple Gestation

Table 3. Antenatal Complications of Multiple Pregnancy

Complication	n=	%age
Preterm Labour	27	54
Preterm Prelabour Rupture of Membranes	6	12
Pregnancy induced hypertension	21	42
Anemia	19	38
Ante Partum haemorrhage	3	6
Hyperemesies gravidarum	3	6
Intrauterine growth retardation	3	6
Urinary Tract Infection	4	8
Gestational Diabetes	2	4

Table 4

Mode Delivery	n=	%age
Vaginal Delivery	32	64
Caesarean Section	18	36

Apgar score of babies was between 7-10 at one minute interval. Birth weight of (84%) of babies was above 1500 grams. Lowest weight of baby was 0.9 Kg and highest weight was 3.3 Kg. Two babies had congenital anomalies. There were five perinatal deaths. The Perinatal mortality rate was 100/1000 live births.

### Discussion

During the study period there were 3143 deliveries out of which 50 were multiple. The prevalence of multiple pregnancy was 1:63 birth.

A study by Shamsa<sup>5</sup> (1996) showed prevalence of 1:69 and by Zaidah<sup>6</sup> (2000) 1:86. This high incidence in Lahore General Hospital is due to the fact that it is tertiary referral center. We found the higher frequency of occurrence of multiple pregnancy among woman aged between 25-30 years.

In the study preterm labour complication were (54%) which is quite high rate of occurrence, although comparable with other studies by Shamsa<sup>5</sup> and Zaidah<sup>6</sup> with a P value Less than 0.05. Preterm premature rupture of membrane occurred in (12%) of cases. Women with multiple P regnancy are at i ncreased risk for development of hypertensive disorders. In this study incidence is (42%). This is higher than reported for single pregnancy.

Anemia is one of the major complication of the pregnant women in the developing countries with a prevalence rate of (30%) to (60%). In this study the rate of (38%) is due to under nutrition and increased demand imposed by multiple pregnancy.

Our finding with regards to vaginal delivery rate of (64%) and on caesarean section rate of (36%) are comparable with other studies having incidence of (21.9%) to (47<sup>7</sup>%). All the three triplet pregnancies had caesarean section<sup>8</sup>. In our study the Apgar score of first and 2<sup>nd</sup> baby was 7 at one and five minute interval. Fourteen babies had birth weight less than 1500 grams and out of them 13 babies survived<sup>8</sup>. The perinatal mortality rate was 100/1000 live births.

Results of this study have shown that multiple pregnancy is high risk pregnancy with high rate of complication which effect mother and neonate.

### Conclusion:

This study is a small one and it may be difficult to draw firm conclusion, however it can be concluded that most complication of multiple pregnancy can be avoided and mortality rate can be lowered by early diagnosis, frequent antenatal visits and proper antepartum and postpartum management. Out come can be improved by improving standard of health care, health education and counselling of patients.

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