

Original Article

MATERNAL MORBIDITY AND ASSOCIATED FETOMATERNAL OUTCOMES IN WOMEN WITH TWIN PREGNANIES

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Objective: Multiple pregnancies still warrants special attention as it is associated with increasing risk for mother and fetus. Preterm delivery increases the risk for baby. This study was conducted to evaluate the risks of pregnancy complications and associated fetal and maternal outcome in women with twin pregnancies.

Material and Methods: It was one year observational study from 1st January 2012 till 31st December, 2012 at department of obstetrics and gynecology Fatima Memorial Hospital, Lahore. All women admitted to the labour ward with twin pregnancies after 28 weeks of gestation were included in the study. Main outcome measures were maternal complications (i.e., anaemia, preterm labour, pregnancy induced hypertension, postpartum hemorrhage etc) and perinatal morbidity and mortality. All data collected was analysed using SPSS-16.

Results: Majority of women 78(78%) were unbooked and only 22(22%) were booked, 56(56%) women presented with preterm labor, anemia was found in 72(72%) patients and hypertension in 33(33%) patients. Majority presented between 30-35 weeks gestation and 30(30%) patients delivered at 36 weeks and above. The most common cause of neonatal death was very low birth weight followed by sepsis and jaundice.

Conclusion: Multiple pregnancies are associated with increasing risk for the mother and fetus. Preterm delivery increases the risk for baby.

Key words: Twin Pregnancy, maternal & child health care, postpartum complications..

Introduction

Multiple pregnancies are no longer a rare event, mostly due to widespread use of assisted reproductive techniques. Incidence of twin pregnancy is 2-3% of all live births; 30-60% of twins are born prematurely, this account for 7-12% of all deliveries, and 85% of all perinatal morbidity and mortality. Delivery before 37 wks in singleton pregnancies occurs in 1-11% and the prematurity rate is between 8-10%.¹ Multiple pregnancies are associated with increased risk for the mother and fetus. A national study described major complication for twin pregnancy as preterm labour (84%), premature rupture of membranes (PROM) (84%), anemia (5-6%), pregnancy induced hypertension (31.2%), abruption placentae (6.2%) and post partum hemorrhage (12.5%).² The national study described that about half of twins were born with a birth weight of <2500 grams. The most common cause of neonatal death was low birth weight (32.8%) followed by sepsis and jaundice. However the chances of survival for very small twin babies are higher than for very small singleton babies. Neonatal death due to very low birth weight was 32.8% for twin-1 and 34.4% for twin-2. Spontaneous vaginal delivery was more common for twin-1 (50%), for twin-2 it was 35%. LSCS rate was 43.6% while for twin-

1 and 46.9% for twin-2.² Women with twin pregnancy had a higher incidence of GDM (3.98%) when compared with singleton pregnancies (2.32%).³ According to a national study hypertensive disorders of pregnancy, cord prolapse, malpresentation, PROM, low Apgar scores, caesarean section rate and perinatal death are significantly higher in twin pregnancies than in singleton.⁴ The impact of monitoring relies on use of effective and timely intervention so that the problem must be avoided.⁵ Birth weight and gestational age are important factors affecting perinatal morbidity and are most significant determinants of infant and childbirth morbidity. Close antenatal and intrapartum care are needed in order to improve outcome and decrease complications.⁶

Although considerable amount of literature already exists regarding twin pregnancies and associated outcomes, the incidence of twin pregnancy has greatly risen over past few years owing to the development and advancement in the assisted reproductive techniques with large proportion of infertile couples resorting to them. Thus reevaluating these patients may add more to existing knowledge. Also, with a very well equipped neonatal care unit at Fatima Memorial Hospital, we receive a lot of patients with twin pregnancies as routine due to risk of prematurity and subsequent requirement of neonatal care services from the periphery.

So with this large proportion of twin gestations presenting to us and an effective clinic for infertile couples; both males and females, I am interested to gain deeper insight into the issues related to twin pregnancies both to mothers and babies with a view to identify areas of critical care.

Objective

Determine maternal morbidity and associated maternal and fetal outcome in subjects with twin pregnancy.

Material And Methods

It is a cross-sectional descriptive study. It is conducted in the department of obstetrics and gynaecology, Fatima Memorial Hospital, Lahore. Non Probability purposive sampling was done. Subjects with twin pregnancy >28 weeks (gestational age as confirmed by LMP & Dating) scan were included. 100 women with twin pregnancy admitted through OPD and emergency were included in this study. An informed consent for using their data in research was obtained. History was taken from patients regarding age, parity, duration of gestation, and any associated risk factors. Examination and investigations were performed. Mode of delivery, Gestational age at the time of delivery and fetal outcome were noted. All this information was recorded on pre-designed Performa. The collected data was entered in SPSS version 16.0 and analyzed through its statistical package.

Results

A total of 6,645 patients were delivered during the study period out of which 100 women presented with twin pregnancy. Majority of the women belonged to age group 25-35 years, Most of the women were unbooked and only 25 (25%) was booked. Frequency of twin pregnancy was 26% in primigravida, 24% in multi gravida and 50% in grand multigravida, Major maternal complications were preterm labor, anemia, premature rupture of membranes, PIH and post partum hemorrhage. Antenatal steroids were given to all patients threatening to deliver prior to 34 weeks gestation. Mode of delivery was spontaneous, vertex vaginal delivery in 35% cases, while cesarean section was done in 65% of cases. When perinatal outcome was analysed, prematurity was the major problem in patients with twin pregnancy, 85% presented between 28-35 weeks of gestation. 15%

Table-1:

Age distribution	"n"	"%"
20-25	20	20%
26-30	30	30%
31-35	36	36%
>35	14	14%
Parity		
Para 1	26	26%
2-4	14	14%
4-5	10	36%
5 and above	50	50%
Maternal Morbidity		
Anemia	28	28%
Pre term labor	20	20%
Premature rupture of membranes	14	14%
PIH	15	15%
GDM	9	9%
Placental abruption	5	4%
PPH	10	10%
Mode of Delivery		
SVD	35	35%
LSCS	65	65%
Gestational age at the time of delivery (in weeks)		
28-32	40	40%
33-35	45	45%
36 and above	15	15%
Fetal Morbidity		
Low birth weight	32	23%
Sepsis	29	29%
Jaundice	27	27%
RDS	12	12%
Perinatal Mortality		
TWIN I		
TWIN II	42	42%

came in labor at 36 weeks or above. 30% twin I had birth weight between 1500-2500 grams and among twin II, 70% had birth weight between 1500-2500grams. Neonatal death due to very low birth weight was 36% for twin I and 42% for twin II, sepsis and jaundice were the commonest causes for neonatal death.

Discussion

Twin pregnancy is a high risk pregnancy associated with increased maternal morbidity and increased perinatal morbidity and mortality.⁷The incidence of twin pregnancy varies throughout the world. Most of the women were found in the age group between 31-40 years which shows that incidence of twin pregnancy is higher in older age group. Similar observation was found in the study conducted by Malik MS et al, Lahore.⁸ Most studies have found that the incidence of twin pregnancy increased with advance maternal age upto 35 years after which the rate declines.^{9,10} Most of the women presented with preterm labor at less than 36 weeks and 15% were at gestational age of more than 36 weeks. Mean gestational age was 39 weeks in singletons, 35.8

weeks in twins and 32.5 weeks in triplets.¹¹ In the present study, most of the patients belong to parity 5 or above. Similar results were found in the study by Malik MS et al.⁸ Most of the women were unbooked. (75%) only 25% were booked The same frequency of unbooked cases was found in the study conducted by Naqvi MM in 2003 where among 96% cases 65% patients were unbooked.¹² During the antenatal period, anemia, preterm labor, PIH and abruption placentae were the major complicating factors. Same as in the study done by Anemia was the most common complication.¹³

Conclusion

Multiple pregnancies are associated with increased maternal and perinatal risk. There is a need for specialized pre natal care to reduce the complications and adverse outcomes in multiple pregnancies and the need for on going social and medical care beyond the pre natal and perinatal periods.

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