Original Research Article

Twin pregnancies: Maternal and perinatal outcome in a tertiary health centre

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Abstract

Background: Twin gestation brings double happiness but at the same time implies twice the unforeseen complications to the health of the mother and the fetus.
Objective: To study the maternal and neonatal outcome in multi fetal pregnancy in a tertiary health centre.
Materials and methods: A retrospective observational analysis of 30 twin pregnancies admitted and managed in our centre. Patients were studied for any adverse antenatal complications, mode of delivery and maternal and perinatal outcome.
Results: In our study, maximum patients were in age group of 31-35 years (33.3%) and primigravida (46%), admitted with gestational age 32-37 weeks (46.6%). Commonest maternal complication observed was anemia (60%) followed by preterm labour (53.3%), premature rupture of membranes (40%), pregnancy induced hypertension (33.3%). Cesarean section was mode of delivery in maximum (60%), with common indication being Malpresentation (50%). Out of 56 live births, 51.6% were admitted in neonatal ICU for causes like prematurity (58.06%). Prematurity was the leading cause of perinatal mortality and morbidity in twin gestation.
Conclusion: Twin gestation has significantly increased risk to both the mother and the fetus. Early recognition and adequate management of twin gestation can decrease associated complications and betterment of maternal and neonatal outcome.

Key words

Twin pregnancy, Maternal morbidity and mortality, Neonatal morbidity and mortality.

Introduction

Twin gestation brings double happiness but at the same time implies twice the unforeseen complications to the health of the mother and the fetus. Twin pregnancy is increasing at an alarming rate, from 18.9 % in 1980 to 32.1% in 2005 [1, 2] and further increased to 33.7%in 2015 [3]. This retrospective observational study comprised of twin pregnancy in a tertiary health centre over a year to evaluate maternal and neonatal outcome and associated complication.

Material and methods

This was a retrospective study done in Dhiraj Hospital, Vadodara in Obstetrics and Gynecology Department over a period of one year. In this study, patients with twin gestation delivered in our hospital over a year (30 patients) were taken and a thorough study of the delivery records including age, parity, gestational age at deliveries, presentation of twins, Apgar score, fetal anomalies, pregnancy complications and neonatal mortality was undertaken.

Results

In this study, maximum patients were in age group of 31-35 years (33.3%) as per **Table – 1**.
In our study, maximum patients were primigravida (46%) as per **Table – 2**. In our study, maximum patients were with gestational age 32-37 weeks (46.6%) as per **Table – 3**.

Commonest maternal complication observed was anemia (60%) followed by preterm labour (53.3%), premature rupture of membranes (40%), pregnancy induced hypertension (33.3%) as per **Table - 4**.

It was observed that maximum underwent Cesarean section (60%) for deliver as per **Table - 5**. In this study, we observed most common indication was malpresentation (50%) as per **Table - 6**. Distribution according to neonatal outcome was as per **Table – 7**. In this study, prematurity (58.06%) was the main indication NICU admission as per **Table - 8**.

Table - 1: Distribution of women according to age.

Patient age (Years)	Number	%
<20	0	0
21-25	5	16.6%
26-30	7	23.3%
31-35	10	33.3%
>35	8	26.6%

Table - 2: Distribution according to parity.

Parity	Number	Percentage
0	14	46%
1	8	26.6%
2	5	16.6%
3 or more	3	10%

Table - 3: Distribution according to gestational age.

Gestational age	Number	Percentage
28-32 weeks	9	30%
32-37	14	46.6%
>37	7	23.3%

Table - 4: Distribution according to maternal outcome.

Maternal complication	Number	%
Preterm labour	16	53.3%
Premature rupture of membranes	12	40%
Anemia	18	60%
Pregnancy induced hypertension	10	33.3%
Abruption placenta	2	6.6%
IUGR	8	26.6%
Polyhydroamnios	2	6.6%
Post partum hemorrhage	1	3.3%
No complications	3	10%

Discussion

Twin gestation is associated with significant risk to mother and fetus. In our study, maximum patients were in age group of 31-35 years

(33.3%) and primigravida (46%) with gestational age 32-37 weeks (46.6%). Similar results were observed by Shugufta Yasmeen Rather [4].

Table - 5: Distribution according to mode of delivery.

Mode of delivery	Number	Percentage
Vaginal	10	33.3
Instrumental	2	6.6
Cesarean section	18	60

Table - 6: Distribution according to indication for Cesarean section.

Indication for Cesarean section	Number	%
Malpresentation	9	50%
Fetal distress	3	16.6%
Cephalopelvic disproportion	2	11.1%
Antepartum hemorrhage	1	5.5%
Pregnancy induced hypertension	3	16.6%

Table - 7: Distribution according to neonatal outcome.

Neonatal outcome	Number	%
Apgar score <7 at 10 min	18	30%
NICU admission	31	51.6%
IUD	4	6.6%
Neonatal death	2	3.3%

Table - 8: Distribution according to indication for NICU admission.

Indication for NICU admission	Number	%
Prematurity	18	58.06%
Respiratory distress	5	16.1%
Birth asphyxia	2	6.4%
Jaundice	1	3.2%
Meconium aspiration syndrome	2	6.4%
Congenital anomaly	3	9.6%

Twin gestation is associated with significant maternal morbidity and mortality [5]. Commonest associated maternal complication observed was anemia (60%) followed by preterm labour (53.3%), premature rupture of membranes (40%), pregnancy induced hypertension (33.3%). Similar results were seen by Bangal, et al. [6].

Cesarean section was mode of delivery in maximum (60%), similar to study conducted by Sultana, et al. [7]. Most common indication was Malpresentation (50%).

Out of 56 live births, 51.6% were admitted in neonatal ICU for prematurity (58.06%). Prematurity is the leading cause of perinatal mortality and morbidity in multiple gestation as was also postulated by studies of Koram, et al. [8] and Ziadeh S [9].

Conclusion

Twin gestation is associated with increased association with maternal and perinatal complications. In many instances, the situation defies the treatment once it is fully developed. Regular, frequent antenatal check up and with liberal hospital admission and thereby early diagnosis or recognition of the complications can help curb and control the situation, limiting the undesirable results and ensure the goal of Safe Motherhood and Child Survival.

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