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Original Article

Perinatal Outcome of the Second Twin with Respect to Mode of Delivery – A Prospective Analysis

Sneha Singh[1], Priyanka Priyadarshini[2], Hiralal Konar[3], Lovely Agarwal[4]

[1]Junior Resident, Department of Obstetrics and Gynaecology, Calcutta National Medical College and Hospital, Kolkata, West Bengal, India, [2]Senior Resident, Department of Obstetrics and Gynaecology, Calcutta National Medical College and Hospital, Kolkata, West Bengal, India, [3]Professor and Head, Department of Obstetrics and Gynaecology, Agartala Government Medical College, Agartala, Tripura, India, [4]Resident Medical Officer Cum Tutor, Department of Obstetrics and Gynaecology, Calcutta National Medical College and Hospital, Kolkata, West Bengal, India

Abstract

Aims and Objectives: The aim of the study was to study the perinatal outcome of the second twin with respect to mode of delivery.

Materials and Methods: Consecutive pregnant women having twin pregnancies beyond 28 weeks of gestation admitted to the department of the institute during the period from April 2016–May 2017 were included in the study.

Results: A total of 50 cases were enrolled in the study. Vaginal, ventouse/forceps, and lower segment cesarean section (LSCS) were the different modes of delivery consisting of 48%, 2%, and 50% of cases, respectively. Perinatal loss of the second twins was higher in LSCS group consisting of 61.11% of cases. Perinatal loss of the second twins was 100% for monochorionic monoamniotic pregnancies whereas 33.33% for monochorionic diamniotic and 29.03% for dichorionic diamniotic pregnancies. The delivery time interval of <10 min between the first and second twin had the higher second twin perinatal loss, i.e., 37.14% and less poor APGAR score, i.e., 57.14% in comparison to time interval of 10–30 and >30 min groups but statistically insignificant. For second twin, vertex presentation had higher poor APGAR score compared to non-vertex presentation, i.e., 65.63% versus 55.56%. Poor APGAR score was found to be higher in cesarean section, outlet forceps and vaginal mode of deliveries consisting of 60%, 100%, and 62.5%, respectively. In overall, 64% of second twins and 84% of first twins were alive, and the difference had $P = 0.034$. About 62% of second twins and 34% of first twins were having poor APGAR score of <7, and the difference had $P = 0.005$. About 67.44% and 76.92% of second twins were found to be alive higher in maternal age group of ≥20 years and multigravida group, respectively, having $P < 0.05$. About 64.52% and 100% of second twins were alive higher in <37 weeks gestational age group and birth weight of second twin ≥2500 kg groups, respectively, with $P < 0.05$. Second twins were having higher alive in vertex-non-vertex presentation, vaginal mode of delivery for both the twins, DCDA group and intertwin delivery interval of 10–30 min groups consisting of 71.43%, 72%, 70.97%, and 77.78%, respectively, with $P > 0.05$.

Conclusion: The perinatal mortality of 2nd twin is higher than that of 1st twin in terms of monochorionic, prematurity, and low birth weight. Intensive labor monitoring, safe delivery, and improved neonatal care facilities appear to be the major areas to improve the perinatal outcome.

Key words: Mode of delivery, Perinatal outcome, Second twin

INTRODUCTION

Multiple pregnancies are a high-risk situation because of its inherent risks to mother and the fetus. Twin or multiple pregnancies are gaining importance worldwide because of the attributable rise in treatment of infertility including assisted reproductive technologies.

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Twin gestations comprise 3.3% of all pregnancies.[1] Twin pregnancies are associated with increased fetal loss, prematurity, structural abnormalities, and fetal growth restriction. Complications associated with twin pregnancy result from exaggerated physiological response, over-distension of uterus, hyperplacentosis, and unique problems posed by monochorionic placentation. Intrapartum complications include preterm labor, dysfunctional labor,

*Corresponding Author: Dr. Priyanka Priyadarshini, Department Obstetrics and Gynaecology, Calcutta National Medical College and Hospital, Kolkata - 700 014, West Bengal, India.

malpresentation, operative vaginal delivery, and cesarean section. Postpartum complications are high such as postpartum hemorrhage, sepsis, and failure of lactation. The conduct of a twin delivery remains one of the most challenging events in the current obstetric practice.

Besides a higher incidence of prematurity and low birth weight (birth weight < 2500 g) in twins, many other factors such as discordant growth, route of delivery, inter-twin delivery time interval, birth order, and gender have been reported to influence neonatal outcome adversely. Second twins delivered at term are at increased risk of delivery-related perinatal death.[2] The second twins are more vulnerable to adverse perinatal outcome than first twin due to separation of placenta, cord compression, cord prolapse, delay in delivery, and uterine dysfunction.[3] The second twin is at added risk of respiratory distress syndrome (RDS).[4] This outcome of the second twin is mostly related to discordant growth and also due to preterm birth. However, data related to twins born in the Southeast Asian region is sparse.

A woman having twin pregnancy should undergo determination of the type of placenta, followed by adequate counseling regarding extra calorie intake, frequent antenatal visits for early identification of maternal morbidities and ultrasound for monitoring the fetal growth to detect any anomalies, intrauterine growth retardation (IUGR) and discordancy at the earlier onset.

The obstetrician should advise woman to take adequate bed rest, antenatal steroids and should plan for the best mode of delivery in each case to prevent preterm birth.[5] A multidisciplinary approach involving skilled obstetrician, anesthesiologists, and neonatologists is necessary for handling women bearing twin pregnancies to get a successful pregnancy outcome with less fetal and maternal morbidity.[6]

The present study has been designed to determine the clinico-epidemiological profile and perinatal outcome of second twin deliveries at a tertiary care hospital in India.

MATERIALS AND METHODS

The present study was a prospective observational one conducted in the department of obstetrics and gynecology of a tertiary care teaching institute during the period from May 2016 to April 2017. Consecutive pregnant women having twin gestation beyond 28 weeks of gestation admitted through antenatal clinic and emergency department of the institute and giving consent to participate were included in the study.

A detailed history including the age, parity, booking status and socioeconomic status, last menstrual period (LMP), obstetric history, history of twin pregnancy, family history of twin pregnancy, history of ovulation induction or other artificial reproductive techniques measures were taken. A detailed history in each trimester regarding any complaints in the antenatal period such as excessive vomiting, anemia, and urinary tract infections, history of adequate calorie intake during each trimester, intake of tocolytics, or antenatal steroids.

The routine examination consisted of looking for features of anemia, position and presentation of fetuses, and fetal parts and fetal heart sounds. Ultrasonography was done to confirm the diagnosis, presentation of the fetuses, any anomalies, birth weight discordancy, etc. Routine investigations were done. In patients admitted with labor pains, gestational age was calculated from day 1 of the LMP. Factors such as premature rupture of membranes, preterm premature rupture of membranes**,** preterm labor, abruption, presentation of fetuses, mode of delivery, time interval, APGAR scores, and complications of 3rd stage labor in the mother were noted. The placenta was examined postnatally and the chorionicity noted. APGAR score of second twin at 5 min, need of nursery or sick newborn care units (SNCU) admission assessed.

The perinatal outcome was measured in terms of number of babies admitted to the neonatal intensive care unit, and the final outcome of the babies, in terms of whether discharged in good condition or expired during the neonatal period. Neonatal morbidity was further defined based on the causes such as RDS, septicemia, IUGR, neonatal hyperbilirubinemia, hypoglycemia, and neonatal seizures (NNS). Causes of death were termed as due to birth asphyxia, sepsis, cord prolapse, prematurity and its complication, fetal growth restriction, NNS, and intrauterine death.

The outcome of the second twin with respect to gestational age, mode of delivery, and birth weight recorded, plotted and significance calculated using statistical analysis.

RESULTS

A total of 50 consecutive pregnant women having twin gestation beyond 28 weeks of gestation attaining our institute during the study period were included in the study. Sociodemographic profile of multiple pregnancies is mentioned in Table 1. Multiple pregnancies were highest in the maternal age group of 21–30 years consisting of 58% and were more prevalent in primigravida consisting of 48%. Preterm pregnancies and frequency of booked cases had

Table 1: Sociodemographic profile

Parameters	Frequency with %
Age (years)	
≤20	15 (30)
21–30	29 (58)
31–40	5 (10)
41–50	1 (2)
Parit	
P0+0	24 (48)
P0+1	1 (2)
P1+0	15 (30)
P1+1	3 (6)
P2+0	6 (12)
P2+1	1 (2)
Socioeconomic status	
Low	22 (44)
Middle	28 (56)
Gestational age (weeks)	
≥37	19 (38)
$34^{0/7}$–$36^{6/7}$	29 (58)
28–34	2 (4)
Antenatal visits	
Booked	44 (88)
Unbooked	6 (12)
Admission route	
Emergency	34 (68)
OPD	16 (32)
Ovulation	
Induced	3 (6)
Spontaneous	47 (94)

P: Parity, OPD: Outpatient door

Table 2: Chorionicity and presentation of both babies

Parameters	Number of cases with %
Chorionicity	
DCDA	31 (62)
MCDA	15 (30)
MCMA	4 (08)
Presentation	
Vertex-vertex	22 (44)
Vertex–breech	11 (22)
Breech-vertex	9 (18)
Breech-breech	4 (08)
Vertex-transverse	2 (04)
Transverse-vertex	1 (02)
Breech-transverse	1 (02)

DCDA: Dichorionic diamniotic, MCDA: Monochorionic diamniotic, MCMA: Monochorionic monoamniotic

Table 3: Perinatal loss with respect to birth weight and mode of delivery

Parameters	First twin		Second twin	
	Total number of cases	Perinatal loss %	Total number of cases	Perinatal loss %
Birth weight (kg)				
<1	0	0 (0)	0	0 (0)
1–<1.5	6	3 (50)	7	7 (100)
1.5–<2.5	35	5 (14.2)	35	10 (28.5)
2.5–4	9	0 (0)	8	0 (0)
Mode of delivery				
Vaginal	27	3 (11.11)	24	7 (29.17)
Ventouse/ Forceps	0	0	1	0
LSCS	23	5 (21.74)	25	11 (44)

LSCS: Lower segment cesarean section

higher incidence consisting of 62% and 88%, respectively. The higher number of admission was from emergency, i.e., 68% of the cases. Only 6% of the pregnancies were result of ovulation induction.

Incidence of dichorionic diamniotic (DCDA) pregnancy was higher followed by monochorionic diamniotic (MCDA) and monochorionic monoamniotic (MCMA) with the incidence of 62%, 30%, and 8%, respectively. The most common presentation of both babies was vertex-vertex being 44% followed by vertex–breech and others [Table 2].

With respect to chorionicity, the median gestational age was higher in dichorionic twin being 37.7 weeks with compared to monochorionic twin where it was 33.4 weeks for MCDA and 36 weeks for MCMA twins. Furthermore, average birth weight was more in dichorionic twin (2.07 kg for first twin and 2.05 for second twin) than monochorionic twin.

Perinatal loss of both the twins was higher in birth weight group of 1–<1.5 kg, i.e., 50% for twin 1 and 100% for twin 2. According to mode of delivery, perinatal loss of both the twins was higher in LSCS group consisting of 21.74% and 44% of cases for twin 1 and twin 2, respectively [Table 3]. Perinatal loss of both the twins was higher in monochorionic pregnancies in comparison to dichorionic pregnancies and the value was 100% for MCMA pregnancies [Table 4]. Delivery time interval of >10 min between the first and second twin had the higher second twin perinatal loss of 37.14% in comparison to time interval of 10–30 and >30 min groups [Table 5].

The mean and median APGAR score was less in second twins with compared to first twin, i.e., twin 1 with mean of 6.92, median of 7.00, and twin 2 with mean of 6.06, median of 6.00. Monochorionic twins have poor APGAR score in relation to dichorionic twins. For the second twin, lower APGAR score was found to be slightly higher in both sex groups than the score of ≥7. Vertex presentation of second twin had higher poor APGAR score compared to non-vertex presentation, i.e., 42% versus 20%, respectively [Table 6]. Intertwin delivery interval is not an influencing factor for poor APGAR score of the second twin, i.e., interval of <10 min had lower APGAR score in 40% and score of ≥7 in 30% [Table 7].

Seventeen cases of first twins and 34 cases of second twins were admitted under SNCU/NICU [Table 8]. For perinatal

Table 4: The perinatal outcome with respect to chorionicity

Parameters	DCDA (%)	MCDA (%)	MCMA (%)
Total number of cases	31	15	4
Perinatal loss			
First twin	1 (3.23)	3 (20)	4 (100)
Second twin	9 (29.03)	5 (33.33)	4 (100)

Table 5: Delivery time interval between the babies and the perinatal outcome of the second twin

Minutes	Total number of cases	Perinatal loss in percentage to total cases
<10	35	13 (37.14)
10–30	9	2 (22.22)
>30	6	2 (33.33)

Table 6: APGAR score of first and second twins with respect to chorionicity, presentation, mode of delivery, and sex distribution

Parameters	APGAR score			
	First twin		Second twin	
	<7	≥7	<7	≥7
Chorionicity				
DCDA	4	27	18	13
MCDA	9	6	9	6
MCMA	4	0	4	0
Presentation				
Nonvertex	6	9	10	8
Vertex	11	24	21	11
Mode of delivery				
Cesarean section	9	14	15	10
Outlet forceps	0	0	1	0
Vaginal	8	19	15	9
Gender				
Boy	11	15	18	10
Girl	6	18	13	9

DCDA: Dichorionic diamniotic, MCDA: Monochorionic diamniotic, MCMA: Monochorionic monoamniotic

outcome, 84% of first twins were alive whereas 64% of second twins were alive and the difference was statistical significant with the $P = 0.034$. About 62% of second twins had low APGAR score compared to first twins where it was 34%, and the difference was statistically significant with $P = 0.005$ [Table 9]. Perinatal morbidity and mortality are comparatively high in the second twin.

Death of the second twins was more in delivery by cesarean section and vaginal mode of delivery consisting of 44% and 25% in comparison to death of first twins with the corresponding value of 21.74% and 7.41%, respectively [Table 10]. However, mode of delivery is found to have no significant influence on the perinatal outcome of both the first and second twins with $P = 0.225$ and 0.321, respectively.

Table 7: APGAR SCORE of the second twin with respect to intertwin delivery time interval

Intertwin delivery interval	APGAR score of the second twin	
	<7	≥7
<10	20	15
10–30	5	4
≥30	6	0

Table 8: SNCU/NICU admission

NICU/SNCU	Twins		Total	*P* value
	First twin	Second twin		
Mother	32 (65.31)	14 (29.17)	46 (47.42)	0.002
NICU	8 (16.33)	16 (33.33)	24 (24.74)	
SNCU	9 (18.37)	18 (37.5)	27 (27.84)	
Total	49 (100)	48 (100)	97 (100)	

NICU: Neonatal intensive care units, SNCU: Sick newborn care units

Table 9: Perinatal outcome and APGAR score of the second twin compared to the first twin

Parameters	Twins		*P* value
	First twin (%)	Second twin (%)	
Outcome			
Alive	42 (84)	32 (64)	
Dead	7 (14)	17 (34)	0.034
Stillborn	1 (2)	1 (2)	
APGAR score			
<7	17 (34)	31 (62)	0.005
≥7	33 (66)	19 (38)	

Table 10: Comparison of outcome of both twins in relation to mode of delivery

Outcomes	Mode of delivery					
	Cesarean section		Outlet forceps		Vaginal	
	T1 (%)	T2(%)	T1 (%)	T2 (%)	T1 (%)	T2 (%)
Alive	18 (78.26)	14 (56)	0	1 (100)	24 (88.89)	17 (70.83)
Dead	5 (21.74)	11 (44)	0	0	2 (7.41)	6 (25)
Stillborn	0	0	0	0	1 (3.70)	1 (4.17)

According to maternal characteristics, the perinatal outcome of second twins in terms of alive was higher in maternal age group of ≥20 years and multigravida group consisting of 67.44% and 76.92%, respectively, in comparison to that in maternal of >20 years group and primigravida group where it was 42.86% and 50%, respectively. The data were statistically significant having $P < 0.05$ [Table 11]. According to neonatal characteristics, perinatal outcome of second twins in terms of alive was higher in <37 weeks gestational age group and birth weight of second twin ≥2500 kg groups consisting of 64.52% and 100%, respectively, with the statistically $P < 0.05$. According

to neonatal characteristics, perinatal outcome of second twins in terms of alive was higher in vertex-non-vertex presentation, vaginal mode of delivery for both the twins, DCDA group and intertwin delivery interval of 10–30 min groups consisting of 71.43%, 72%, 70.97%, and 77.78%, respectively, with the statistically $P > 0.05$ [Table 12].

DISCUSSION

In our study, the majority of twin pregnancies were seen in the age group of 21–30 years consisting of 58% which was supported by Konar *et al.* where they found the incidence of 65.71% in the age group of 20–29 years.[7] In present study, incidence of twin pregnancy in primigravida was 50%, whereas in the study of Kwon *et al.* they found the incidence of 67.1% in the primigravida women.[8] In contrast, Konar *et al.* found higher incidence, i.e., 70% in multigravida.[7] The most common presentation in our study was vertex-vertex followed by vertex-breech presentation which was supported by the studies done by Konar *et al.* and Chittacharoen *et al.*[7,9] In our study, majority of the cases delivered at preterm, i.e., <37 weeks consisting of 62% cases which were supported by Dera *et al.* where 62.5% of cases delivered at <37 weeks,[10] whereas Konar *et al.* observed per-term deliveries in 44.2% cases.[7]

Table 11: Perinatal outcome of the second twin according to maternal characteristics

Maternal characteristics	Total number	Alive (%)	Dead (%)	*P* value
Maternal age (years)				
<20	7	3 (42.86)	4 (57.14)	<0.05
≥20	43	29 (67.44)	14 (32.56)	
Gravidity				
Primigravida	24	12 (50)	12 (50)	<0.05
Multigravida	26	20 (76.92)	6 (23.08)	

Table 12: Perinatal outcome of the second twin according to neonatal characteristics

Neonatal characteristics	Total number	Alive	Dead	*P* value
Gestational age at birth (weeks)				
<37	31	20 (64.52)	11 (35.48)	<0.05
≥37	19	2 (10.53)	17 (89.47)	
Fetal presentation				
Vertex-vertex	22	15 (68.18)	7 (31.82)	>0.05
Vertex-nonvertex	14	10 (71.43)	4 (28.57)	
Non-vertex-others	14	7 (50)	7 (50)	
Mode of delivery				
Both vaginal (v-v)	25	18 (72)	7 (28)	>0.05
Both cs (c-c)	23	12 (52.17)	11 (47.83)	
First vaginal second cs	2	0	2 (100)	
Birth weight of second twin (gm)				
<2500	42	25 (59.52)	17 (40.48)	<0.05
≥2500	8	8 (100)	0	
Chorionicity: DCDA	31	22 (70.97)	9 (29.03)	>0.05
MCDA	15	10 (66.67)	5 (33.33)	
MCMA	4	0	4 (100)	
Birth weight difference between first and second twin				
<20% nondiscordant	27	16 (59.26)	11 (40.74)	>0.05
>20% discordant	13	7 (53.85)	6 (46.15)	
Gender				
Boy	28	18 (64.29)	10 (35.71)	>0.05
Girl	22	15 (68.18)	7 (31.82)	
Intertwin delivery interval (minutes)				
<10	35	22 (62.86)	13 (37.14)	>0.05
10–30	9	7 (77.78)	2 (22.22)	
>30	6	4 (66.67)	2 (33.33)	

In our study, the median gestational age was higher in dichorionic twin being 37.7 weeks with compared to monochorionic twin, and it implies preterm delivery to be more common with monochorionic twin pregnancies than dichorionic twin pregnancies. Continuing pregnancy >37 weeks in monochorionic pregnancies had higher mortality when compared with dichorionic pregnancies. Hack *et al.* in their study found six neonatal deaths in monochorionic pregnancies after 32 weeks of gestation. Perinatal mortality was 7/1000 births in those who delivered >37 weeks. Hence, they concluded that mortality at term was higher in monochorionic twin pregnancies than in dichorionic twin pregnancies, hence, waiting for spontaneous onset of labor after 37 weeks is not justified.[11] Planned elective delivery between 36 and 37 weeks should be considered, which avoids the respiratory disorders in the neonate due to preterm delivery. Furthermore, 1% risk of IUD after 37 weeks can be avoided. This does not warranty elective cesarean section in all cases and does not have significant impact on the neonatal outcome. Few studies suggested that most of the monochorionic pregnancies complicated by discordancy and twin-twin transfusion syndrome ends up in preterm births and intrauterine fetal death. In the absence of such complications, elective preterm delivery is not indicated.[12] Uncomplicated twin pregnancies delivered electively by 37 weeks had lesser incidence of adverse outcomes in the neonate compared with those pregnancies with >37 weeks with awaited spontaneous onset of labor.

In the present study, 54% of first twin babies and 48% of the second twin babies delivered vaginally, two of the second twin delivered by cesarean followed by vaginal delivery of the first twin due to indications such as cord prolapse and fetal distress. The perinatal loss of the second twin was not influenced by the mode of delivery. It was similar to study of Caukwell *et al.* where they found that the presentation and mode of delivery of the second twin were not associated with significant difference in any of the outcome variables.[13] Konar *et al.*, in their study, found perinatal mortality less in both the twins undergoing cesarean section compared to that undergoing vaginal delivery in the same geographic area.[7]

Bjelic-Radisic *et al.*, in a study, stated that low APGAR was found maximum in those cases delivered by V-CS (vaginal-1st twin and cesarean section of 2nd twin) followed by V-V and then CS-CS. They found higher mortality in non-vertex 2nd twin supporting our data.[14] In our study, vaginal delivery had higher low APGAR score with compared to CS but, data were statistically insignificant. The high CS rate in V/NV presentation and the significantly worse perinatal short-term outcome of NV second twins underlines that randomized studies are necessary to evaluate the best delivery mode for V/NV twins.

A study by Dera *et al.* suggested that the mode of delivery had no influence on the morbidity and mortality of the non-cephalic second twin of weight >1.5 kg.[10] Steins Bisschop *et al.* suggested that there is no consensus regarding the ideal route of delivery for non-vertex twins. They stated that it is ideal to do LSCS for non-vertex first twin since the phenomena of interlocking twins are seen with breech/vertex twins.[15] Yang *et al.* stated that vaginal delivery causes more morbidity to the second twin than caesarean section of both the twins.[16] American College of Obstetricians and Gynecologists Committee on practice bulletin does not give a clear cut conclusion regarding the mode of delivery.[17]

Cochrane systematic review regarding this issue stated that delivery of non-vertex second twins by vaginal route is associated with increased maternal morbidity and also does not improve the neonatal outcome; hence, further trials are needed to conclude regarding opting for LSCS.[18] Hack *et al.* stated regarding MCDA pregnancies that perinatal mortality was similar between all modes of delivery groups.[11]

The second twin is in a state of chronic distress (hypoxia) compared to the first twin. Irrespective of mode of delivery second twin was born with low mean APGAR score (<7) compared to first twin in the present study.

In the present study, intertwin delivery interval was not found to be an influential factor in the perinatal outcome of the second twin. This was supported by the study of Cukeirman *et al.* who found that composite adverse outcome of the second twin and NICU admission was not significantly influenced by intertwin delivery interval.[19] Similar observation was quoted by Algeri *et al.* that intertwin delivery time was not an influencing factor. Hence, in line with this result, in their clinical practice, they did not use a fixed time in which baby should be delivered [20]. Kwon *et al.* observed a better neonatal outcome when the inter twin delivery time interval was <10 min.[8]

In the present study, fetal monitoring of twin in all cases during the intrapartum period could not be done due to non-availability of twin transducers, intrapartum period needs to be observed.

It is a known fact that birth weight <2500 g has a poorer outcome in terms of morbidity and mortality of both the twins. In the present study, the perinatal mortality was highest in the birth weight of <2.5 kg, and it was statistically significant with $P < 0.05$. This was similar to Konar *et al.* who observed perinatal outcome of the second twin was unfavorable among low birth weight.[7]

Average birth weight in kg in dichorionic and monochorionic pregnancies was 2.1 and 1.9, respectively. The average birth weight was approximately 100 g higher in dichorionic twins than in monochorionic twins. Hack *et al.* compared monochorionic and dichorionic twins in 651 pairs and observed that the birth weight of dichorionic twins was 288 g higher than monochorionic twins.[11]

In the present study, discordancy was found higher in monochorionic twin pregnancies than in dichorionic twin pregnancies, with the loss of 22.2% for first twin babies and 46.17% for second twin babies. Moreover, the mortality for the discordant second twin in a monochorionic pregnancy was still higher, i.e., 50% versus 33.3% in dichorionic twin pregnancies. $P > 0.05$; hence, the difference was not statistically significant. Percentages of discordant babies were in equal in both monochorionic and dichorionic twin pregnancies. However, the mortality was higher for mono-chorionic pregnancies (33.3%) than di-chorionic (15.7%) pregnancies in the study of Hack *et al.*[11]

In the present study, the outcome of the second twin baby has been judged based on values of APGAR score of both twin babies. There were 34% of first twin babies and 62% of second twin babies with APGAR score of <7. Numbers of NICU/SNCU admissions were high for second twin babies, i.e., 34 versus 17 of first twin babies and the difference is statistically significant with $P < 0.05$.

In the present study, mortality for the second twin is higher, i.e., 340/1000 births than the first twin, i.e., 140/1000 births. In our study, 84% of first twin babies were discharged alive whereas 64% of second twin babies discharged alive. We found higher perinatal loss in the second twin with compared to first twin, and our results were similar to Santana *et al.*[21]

CONCLUSION

With the increased age of motherhood and with the increased number of mothers seeking infertility treatments, assisted reproductive technologies are been used widespread, leading onto the increased incidence

of twin gestations. Any patient with multiple gestations should be clinically managed as a high-risk pregnancy. The multidisciplinary team should be led by an obstetrician and should include midwives, sonologist, neonatologist, and anesthetist. Such a service would provide a structured plan that will enable early detection, appropriate management, and effective use of the resources for the antenatal, intrapartum, and postnatal needs of the patients.

Perinatal/Neonatal morbidity and mortality are significantly higher in multiple gestations than singleton pregnancies. Out of the perinatal mortality of the twins, the perinatal mortality of 2nd of the twin is higher than that of 1st twin in terms of prematurity and low birth weight. Immediate neonatal problems detected were prematurity and birth asphyxia. The outcome was poorer for monochorionic twins than in dichorionic twins. Furthermore, the chorionicity is important in assessing the perinatal outcome of the twins than the zygosity, which can only be determined using genetic testing. Providing optimum antenatal checkup to all mothers having multiple gestations could not improve perinatal outcome. All patients with multiple gestations should have a thorough first- and second-trimester ultrasonography to assess chorionicity, amnionicity, individual fetal growth, and congenital malformations. The presentation of each fetus must be sonographically verified as soon as the patient with multiple pregnancies presents in labor. Intensive labor monitoring, safe delivery, and improved neonatal care facilities appear to be the major areas to improve the perinatal outcome.

However, the present study suffers from the limitation of sample size and self-imposed restrictions in case selection and sparse studies.

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