

TWIN GESTATION: A CHALLENGING TASKVrunda V. Choudhary¹, Sunitha Sudhir², Rajesh Kaul³, Sonali Rathi⁴**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: INTRODUCTION In the era of modern obstetrics when multiple pregnancies are on increase it is very important to know the incidence and obstetric outcomes of twin deliveries. Twin pregnancy is still associated with increased maternal and perinatal morbidity and mortality as well as healthcare costs.^(1,2,3) **MATERIALS AND METHODS:** This is a retrospective study of twin deliveries done in the rural medical college teaching hospital over a period of 3 years. **RESULTS:** During the study period, incidence of twin delivery was 19.37 per 1000 deliveries. Majority cases of twins were young primies in age group (20-30 years). Preterm delivery occurred in 68% cases and was therefore, the most common morbidity followed by anaemia (38%) and PIH (28%). Most common presentation was vertex (66%) and malpresentation were present in 44% of cases. 54% were delivered by caesarean section. In 88% second baby delivered within 15 minutes. Uterine inertia, PROM, fetal distress, PPH, cord prolapse and abruption were complications during labour. There was no maternal mortality in present study. Average weight of first baby was 1679.63 gms and 2nd baby was 1586.94 gms. Perinatal mortality of 1st baby was 27.55 for 1st baby and 37.25% for 2nd baby. Average gestational age for patients in whom cervical encirclage was done was 34 weeks. **CONCLUSION:** Preterm delivery and low birth weight babies are main challenges to the obstetrician. Incidence of LSCS is quite high with malpresentation of leading (twin A) baby is a major indication for LSCS. The use of antenatal care services and good intrapartum management will help improve outcome in twin pregnancies.

KEYWORDS: Delivery, obstetric; Pregnancy, twin.

INTRODUCTION: Twins have been the object of great interest and fascination as well as intensive enquiry since ancient times.⁽¹⁾ Twin pregnancy is associated with increased maternal and perinatal morbidity and mortality as well as healthcare costs.^(1,2,3) Women with multiple gestations are nearly six times more likely to be hospitalized due to complications during pregnancy;⁽²⁾ perinatal mortality rates are four times higher in twin babies than in singletons.⁽³⁾ In the era of modern obstetrics when multiple pregnancies are on increase it is very important to know the incidence and obstetric outcomes of twin deliveries.

This study was designed to determine the obstetric outcomes of twin deliveries in the rural medical hospital of Telangana.

MATERIALS AND METHODS: The study was a retrospective review of all twin deliveries at the teaching hospital of rural medical college, Telangana over a period of 3 years between May 2010 and June 2012. Data were retrieved from patient's case-notes and supplemented by information from the labour ward, postnatal ward, theatre, and medical record department.

The collected data were entered into a computer, and statistical analysis was done using spss for windows (Version 15). Statistical significance was set at the p value <0. 05.

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RESULTS: During the period under review, there were 50 twin births in 2660 deliveries, giving an overall rate of twin gestation as 19.37 per 1,000 deliveries. The demographic data is as follows table 1.

Majority of patients were in age group of 20-30 years with gravidity ranging from 1st to 3rd. 50% patients were booked and from low socioeconomic class Table 2. Showing maternal morbidity Preterm delivery was the commonest complication occurring in 68% of the cases. This was followed by anaemia 38% and hypertensive disorders in pregnancy (Pregnancy-induced hypertension, pre-eclampsia, and eclampsia) 28%. Other morbidities were hellp syndrome 6%, polyhydramnios 6%, aph 4%, and cord prolapse 2%. antenatally and prom 16%, uterine inertia 10%, fetal distress 8% pph 4%, cervical tear, cord prolapse and perineal tear in 2% respectively during normal labour.

Evidence of underlying infection was seen in 25% of patients of preterm labour cases.

Average gestational age in patients with encirclage and without cervical encirclage was 34 weeks only.

Period of gestation was as follows. Only 13(26%) patients could reach beyond 37 weeks. there were 21(42%) cases between 33 -to 37 weeks and 13(26%) between 24 to 32 weeks of gestation. Lastly 13 (26%) aborted before 24 weeks.

Cephalic presentation of both the babies occurred in 42% of the cases while vertex -breech presentation was seen in 20%. Breech-vertex presentation was seen in 12% while breech-breech presentation occurred in 10% of twin deliveries. Other presentations (cephalic-transverse, breech-transverse, and transverse-breech, transverse-cephalic) accounted for the remaining 10%.

Overall. Spontaneous vaginal delivery was the mode of delivery in 22(44%) and 22(44%) for the first and the second baby respectively while forceps delivery was conducted for 1(02%) and 1(2%) of the first and the second baby respectively. Overall 23 1st and 23 2nd babies delivered vaginally.

The caesarean section rate for twin delivery was 54%.

The commonest indication for caesarean section was foetal malpresentations (in twin A) occurring in 16(59.25%) of the caesarean deliveries, followed by previous section 03(11.11%), fetal distress 02(7.40%) hypertensive disorders in pregnancy in 2(7.40%). Abnormalities in labour (failure to progress and obstructed labour) were the indication in 1(3.70%), eclampsia 1(3.7%) boh 1(3.7%) hiv positive 1(3.7%) and aph 1(3.70%). Stastastical evaluation involves chi-square =0.000 with 2 degrees of freedom; $p > 0.05$. There is no statistically significant difference in mode of delivery in this series.

The commonest postpartum complication was primary postpartum haemorrhage which occurred in 2(4.0%) of mothers.

Weight of fetuses was as shown table 3. The mean birth weight of the first baby was 1679.83 gm while the mean birth weight of the second baby was 1586.94 gm. There was no statistically-significant difference when the weights of the first and the second baby were compared ($t=0.343$, $p=0.732$).

There were 11(27.5%) and 15(37%) stillbirths among the first and the second baby respectively. perinatal mortality in second baby was more than first baby in this series. $z = 0.684$; $p > 0.05$. There is no statistically significant difference in proportion of perinatal mortality in both babies of twin gestations. Correlation of weight and perinatal mortality is as shown in figure no. 1.

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Correlation of mode of delivery and perinatal mortality was seen which as follows perinatal mortality in cases delivered vaginally is and by lscs was found to be 23.91% & 25.92% respectively. There is no statistically significant difference in in pnmr in patients delivered vaginally or by lscs in 32 cases (64%) time interval was less than 5 minutes and in 12 cases (24%) time interval was upto 15 minutes. $z=3.828$; $p < 0.01$. There is statistically significant difference in proportion of time interval between two groups, 88% of second babies delivered within 15 minutes after delivery of first baby.

Maternal morbidities were found to be less in mothers when antenatal care began before 24 weeks and minimum 6 visits were seen.

DISCUSSION: The overall rate of twin gestation was 19.37 per 1,000 deliveries in this study. This is seen in comparison with twin incidence quoted by different studies ranging from 11.4⁽⁴⁾ to higher incidence of 37.1 per 1000 births quoted by studies from Pakistan and Nigeria.⁽⁵⁾ Highest incidence has been found in one Nigerian study upto 57.3 per 1000 live births.⁽⁶⁾

Women in the age-group of 20-30 years were the majority, accounting for 70% of total cases studied. This observation is similar to the finding from other studies.^(7,8) While one study⁽⁹⁾ has observed 30-39 years with high incidence.

Majority of studies revealed brunt of twinning in primers to 3rd parous patients.^(8,10)

Preterm delivery was the commonest obstetric complication observed in the study as was the case in other studies carried out⁽¹¹⁾ it is the most important factor contributing to the increasing perinatal mortality and morbidity in multiple pregnancies.⁽²⁾

In our study normal delivery occurred in 44% and forceps 2% and lscs was done in 54% of the cases. Similar incidence is noted by majority of the studies 13, 14, 39, 18, and 7819. High incidence of LSCS noted in our study was because of more incidence of high risk cases being referred.

Caesarean section rate for twin pregnancy is usually higher than that for singletons. One study showed that twin pregnancy has three times higher risk of caesarean section compared to singletons.⁽¹²⁾ Thus, the caesarean section rate found in the study was within the range reported in other studies.⁽¹³⁾

Non-vertex presentation of the leading baby was the major factor contributing to the caesarean section rate noticed in the study. Perinatal mortality is said to increase with non-vertex presentations; thus, a liberal approach to caesarean section for breech twin births and particularly for paired breech-breech presentation is strongly advocated by some authorities.⁽¹⁴⁾

The mean birth weight of the first baby was 1679.83 gm while the mean birth weight of the second baby was 1586.94 gm similar weight noted.⁽¹⁵⁾

While slightly higher average weights were noted by few studies (42, 6, 44, 20. Acog 2004⁽⁴³⁾ acog guidelines states 2347gm as average weight of both babies. Thus, more research into measures aimed at preventing preterm deliveries and low birth weight is crucial toward improving the foetal outcome of twin pregnancies in developing countries.

In the present series a perinatal mortality was 32.5%. It was 27.5% for first baby and 37.5% for second baby. Slightly high pnmr was seen in 2nd baby though not statistically significant. The number of stillbirths was higher in the second baby compared to the first baby. The increased morbidity and mortality associated with the second baby are well-documented.^(16,17) Pnmr ranged from lowest 10.5% ⁽¹⁸⁾ to 35% in some studies.⁽¹⁹⁾

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Pnmr was also related to birth weights. In our series pnmr between 2000 to 2500 was nil. Similar findings are seen in some studies noted.^(8,19)

Good antenatal care starting as early as possible may improve obstetrics outcome.⁽²⁰⁾

CONCLUSIONS: Managing Twin pregnancy is still a challenge to the obstetrician in view of maternal and perinatal outcome. Majority of the patients are of low parity, with preterm delivery as the most common obstetric complication. Foetal malpresentations as the leading indication for cesarean section. The use of antenatal care services and good intrapartum management will help improve outcome in twin pregnancies.

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		NO. OF PTs	PERCENTAGE	Z VALUE	P VALUE
ANC STATUS	BOOKED	28	56		
	UNBOOKED	22	44	1.000	>0.05
AGE	<20	03	06		
	20-30	35	70		
	>30	11	24	4.408	<0.01
PARITY	P1	24	48		
	P2	13	26	2.071	<0.05
	P3 AND MORE	13	26		
SOCIOECONOMIC STATUS	LOWER	26	52		
	MIDDLE	22	44	0.600	>0.05
	HIGHER	02	02		
H/O OVULATION INDUCING DRUGS		9	18		

TABLE NO. 1: SHOWING DEMOGRAPHIC DATA OF PATIENTS OF TWIN PREGNANCY

Morbidity	Total	Percentage	Z value	P value
Preterm labour	34	68%		
anaemia	19	38%		
PIH	14	28%		
HELLP	03	06%		
POLYHYDRAMNIOS	03	06%	2.805	<0.01
APH	02	04%		
CORD PROLAPSE	01	02%		
PPH	02	04%		

TABLE NO. 2: Showing Maternal Morbidities in twin pregnancy

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Weight in gms	Twin A		Twins B	
	NO	%	NO	%
<1000	09	18	11	22
1000--1500	07	14	05	10
1500-2000	14	28	18	36
2000---2500	18	36	14	28
>2500	02	04	01	02

Table No. 3: Showing fetal outcome in twin pregnancies

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