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ORIGINAL ARTICLE

MULTIPLE GESTATION AND THEIR OUTCOME: A STUDY FROM A RURAL TEACHING HOSPITAL IN SOUTH INDIA

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ABSTRACT: OBJECTIVE: A Retrospective Study to find out the Maternal and Neonatal Outcome in Multiple gestations. **SETTING:** 113 case sheets of patients with multiple pregnancies who delivered in MOSC Medical College were studied. **RESULTS:** 96% of patients had Maternal Complications. Anaemia (43.3%) followed by preterm labour (28.3%) were the commonest complications. Hyperbilirubinemia and RDS were the commonest neonatal complication. Neonatal mortality was 15.9% in twin pregnancies. The risks of multi fetal pregnancies are significant. Proper management of these pregnancies can reduce the complications and improve the maternal and neonatal outcome.
KEYWORDS: Multiple pregnancy, high risk, pregnancy outcome.

INTRODUCTION: Multiple pregnancies are often viewed as a novelty or miracle yet multifetal pregnancies represent a perilous journey for the mother and the unborn child. Fueled largely by the infertility therapy the rate and number of twin and higher order multifetal births have been increased since dramatically since 1980.(1) The overall increase in the prevalence of multifetal births is of concern because of the increase in the rate of preterm birth comprises neonatal survival and increases the risk of lifelong disability. In addition to these things the risk of congenital malformations are increased in multifetal gestation. The mother will also experience higher obstetric morbidity and mortality rates. These risks are magnified further with triplets and quadruplets.

MATERIALS & METHODS: This study was conducted in MOSC Medical College Kolenchery. Retrospective analysis of case sheets of 113 patients with multiple pregnancies who delivered in 2 years 2013 – 2014 were studied. This included 109 twin pregnancies and 4 triplets. The data including history, complete physical and obstetric examination, mode of delivery, postpartum complications and neonatal morbidity and mortality in first week of life were recorded. Data thus obtained were analyzed and results studied.

INCLUSION CRITERIA: All patients with multiple gestations who have completed 20 weeks.

EXCLUSION CRITERIA: All Singleton Pregnancies.

SAMPLE SIZE: 113 Calculated according to the n Master Size Calculation Software.

STUDY DURATION: 2013 – 2014.

RESULTS: DEMOGRAPHIC DATA OF THE PATIENTS.

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AGE WISE DISTRIBUTION OF PATIENTS		
20 -25	43	38%
26 -30	56	49.5%
31 -35	11	9.7%
36 -40	2	1.76%
41 -50	1	0.8%

TABLE 1: AGE WISE DISTRIBUTION OF PATIENTS

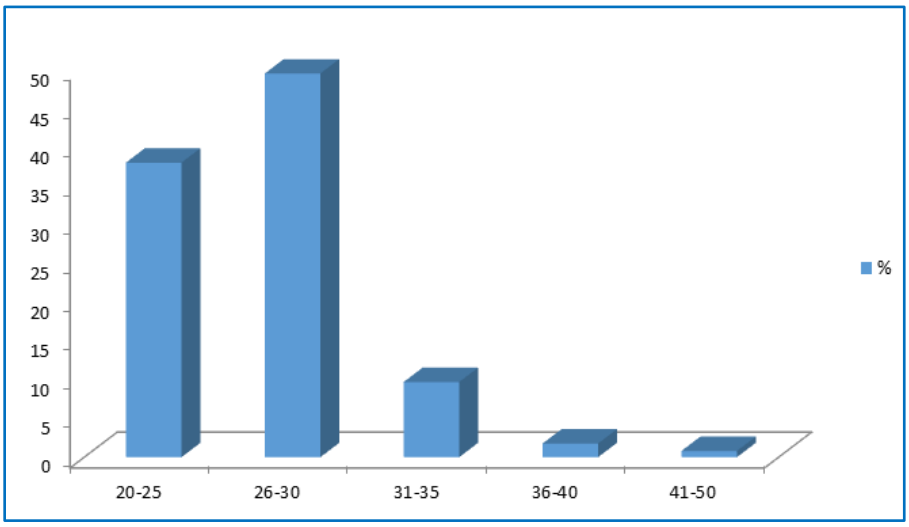

FIGURE 1: Age wise distribution of patients

Maximum number of women was in the age group of 26 – 30 years, the youngest being 20 years and the eldest 46 years.

PARITY OF PATIENTS		
PRIMI	80	70.7%
PARA 1	20	17.6%
PARA 2	12	10.6%
PARA 3	1	0.8%

TABLE 2:PARITY OF THE PATIENTS

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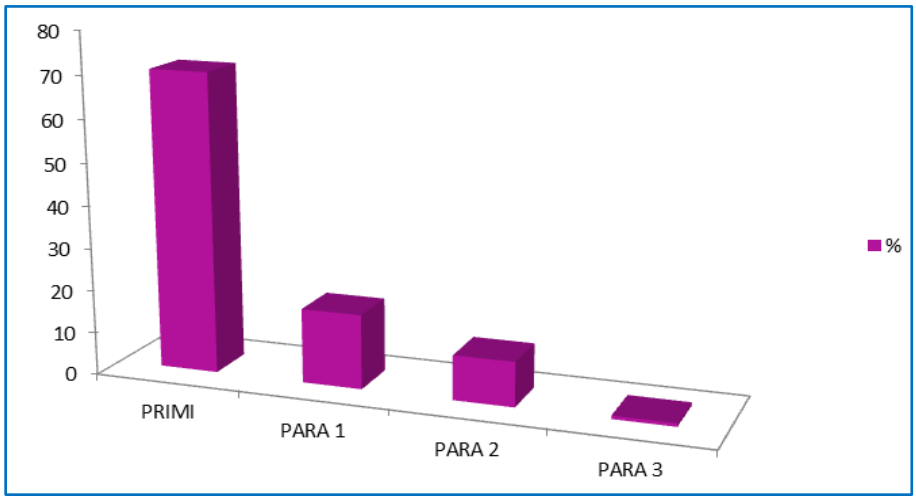

FIGURE 2: PARITY OF THE PATIENTS

70% of the patients were primigravidas.

TOTAL NUMBER OF PATIENTS = 113	
TWINS	109
TRIPLETS	4

TABLE 3

MATERNAL OUTCOME n=113		
ANAEMIA	49	43.3%
GESTATIONAL HYPERTENSION	21	18.5%
GDM	16	14.15%
PRETERM LABOUR	32	28.3%
PROM	2	1.76%
PPROM	22	19.46%
ABRUPTION	3	2.65%
PLACENTA PREVIA	2	1.76%
IUGR	5	4.42%
IUD	5	4.42%
CONGENITAL MALFORMATION	1	0.88%
PPH	1	0.88%
NO COMPLICATIONS	5	4.42%

TABLE 4: MATERNAL OUTCOME

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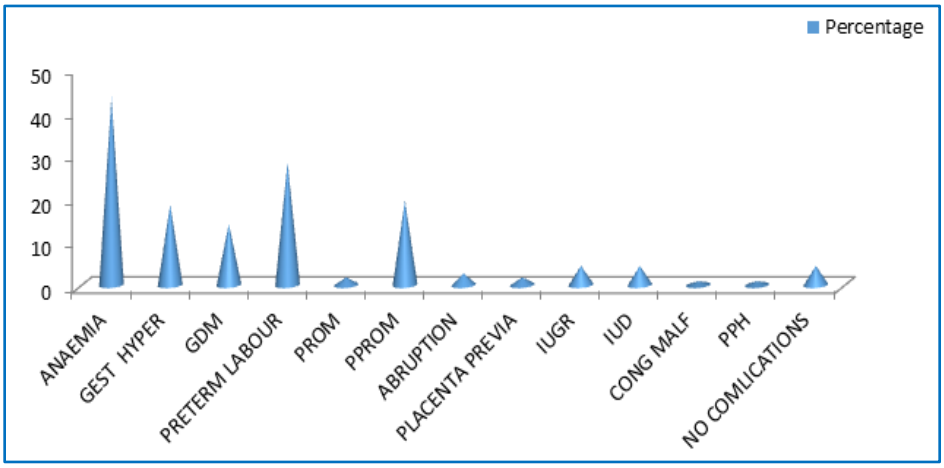

FIGURE 3: MATERNAL OUTCOME

A great majority of these women had complications during antenatal period. Anaemia was the commonest complication (43.3%). Preterm labour was there in 28.3%. Gestational Hypertension, PPROM, PROM, Abruption, Placenta Previa, IUD of one foetus, IUGR was important complications. Pregnancy was uneventful in only 4%.

TOTAL NUMBER OF DELIVERIES: 113		
VAGINAL DELIVERY	41	36.2%
LSCS	72	63.8%

TABLE 5

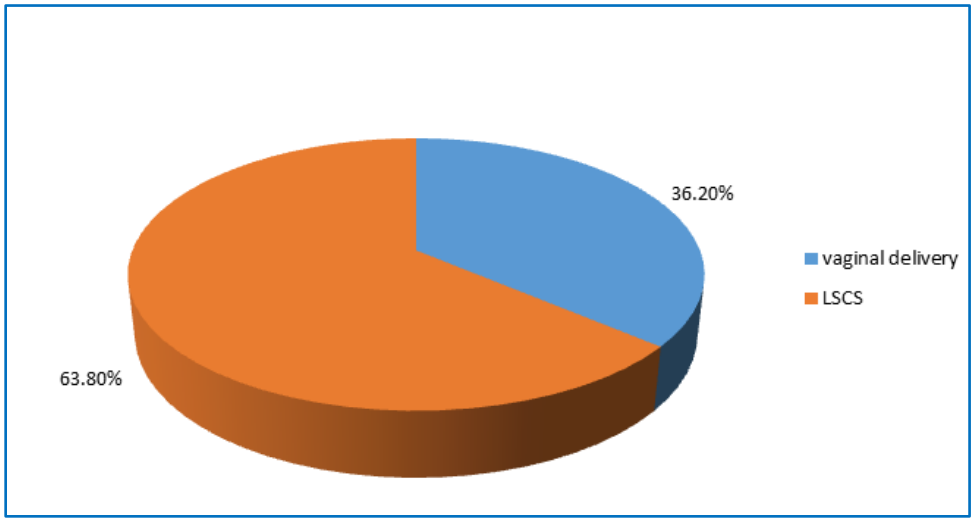

FIGURE 4

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INDICATION FOR LSCS n = 72		
ABNORMAL PRESENTATION	24	33.3%
PREVIOUS LSCS	11	15.2%
INFERTILITY, BOH	7	9.72%
PPROM, FAILED INDUCTION,CHORIOAMNIONITIS	6	8.33%
GESTATIONAL HYPERTENSION	6	8.33%
ABRUPTION	1	1.38%
PLACENTA PREVIA	2	2.77%
NON-REACTIVE CTG	2	2.77%
IUGR	4	5.55%
FAILURE TO PROGRESS	2	2.77%
TRIPLET	4	5.55%
MCMA	2	2.7%

TABLE 6

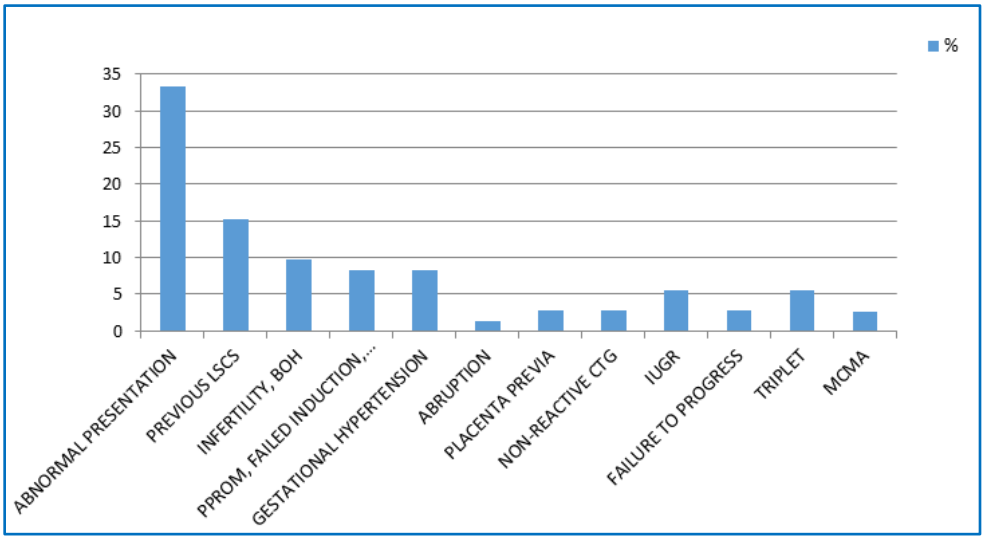

FIGURE 5

Out of the 113 women 36.2% delivered vaginally. Majority of them came with established preterm labour. The remaining 63.8% had LSCS. Mal presentation was the commonest indication necessitating caesarean section.

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NEONATAL OUTCOME				
	TWINS No: 218	**%**	**TPIPLETS No: 12**	**%**
HYPERBILIRUBINEMIA	128	58.7%	6	50%
RDS	51	23.3%	1	8.3%
TACHYPNOEA/ TRANSIENT APNOE	19	8.7%	4	33.3%
HYPOGLYCEMIA	36	16.5%	2	16.6%
INTRA VENTRICULAR HAEMORRHAGE	1	0.45%	O	0
SEPSIS	18	8.25%	1	8.3%
DEATH	13	15.9%	1	8.3%

TABLE 7

Hyperbilirubinemia, RDS and Transient tachypnoea/ apnoea formed the major neonatal morbidity. Neonatal mortality was 15.9% in twin pregnancies & 8.3% in triplets.

DISCUSSION: Multifetal pregnancies are always associated with increased obstetric complications. The simultaneous birth of more than one foetus produces increasing hazards to the newborn also.

40.7% of women in our study were primigravida and 49.5% belonged to the age group of 26-30 years. Yuel Veronica Irene et al reported that majority of women in their study were primi and 57% belonged to the age group of 20 -25 years.[3] Aina et al also reported a higher incidence of multiple gestation in nulliparous of younger age group.[4] Chowdhury S et al reported that 67.9% of patients were in 22-29 year age group and 64.2% were multiparas.[5]

Multifetal gestation is always associated with adverse maternal outcome. 96% of women in our study had one or more obstetric complications. Anaemia was the commonest affecting 43.3 %. Preterm Labour was the next complication affecting 28.3%. PPROM 19.46%, Gestational Hypertension 18.5%, GDM 14.15%, Abruption 2.65%, Placenta Previa 1.76%. IUD of one foetus, IUGR, Congenital Malformations was the other complication. Yuel Veronica Irene et al reported preterm Labour as the commonest complication affecting 57.5% followed by Anaemia affecting 28%, Gestational Hypertension 10%, PPROM 18%.[3] Chowdhury et al reported Anaemia in 35.8%, Gestational Hypertension 22.55, PPH 18.9%, APH 5.7%, GDM 5.7% of the patients.[5] Conde-Agudelo A et al also reported increased incidence of Gestational Hypertension, PPH, Preterm Labour, Anaemia, UTI, Puerperal Sepsis in multiple pregnancies.[6]

In our study 36.2 % delivered vaginally and the rest had LSCS. Mal presentation was the commonest indication. Yuel Veronica Irene reported 55% delivered vaginally and 45% had LSCS.

Average duration of gestation at vaginal delivery was 33+2 weeks and at caesarean delivery 34+2 weeks. This difference was not statistically significant (P >0.05).

Yuel Veronica et al reported that the average duration of gestation at vaginal delivery was 30 + 2 weeks and at caesarean delivery 34+ 2 weeks. This difference was statistically significant (P <. 05).[3] Aina – Mumuney et al reported similar findings.[4]

In our study Neonatal Hyperbilirubinemia 58.7% Twins & 50 % for Triplets, RDS 23.3% for twins and 8.3% for Triplets, Transient Apnoea and Tachycardia 8.7% Twins & 33.3% for Triplets were the commonest neonatal morbidity. Similar findings were reported by Yuel.

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Veronica Irene et al.[3] Our studies showed a Neonatal Mortality of 15.9% for twins and 8.3% for triplets. All the other studies showed increased mortality in triplets and higher order pregnancies. Our study included only 4 triplets being a very small number to commend regarding mortality. Triplet numbers are decreasing due to fetal reduction.

CONCLUSION: Recognizing the specialized nature of multiple pregnancy management has led to the publication of recommendation by two scientific study groups of RCOG and the commissioning of recommendation of care for multiple pregnancies by the National Institute of Health & Clinical Excellence (NICE) in 2009. At the heart of the care is the recommendation that such pregnancies are managed with specialist multidisciplinary teams and in designated multiple pregnancy clinics as to organize antenatal, intraparty and indeed postpartem care.[7]

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