

Multiple Pregnancy: Its Maternal and Fetal Outcome

S Sowmya¹, Jayanth S²

How to cite this article:

S Sowmya, Jayanth S. Multiple Pregnancy: Its Maternal and Fetal Outcome. Indian J Obstet Gynecol. 2019;7(4)(Part-II):633-636.

¹Assistant Professor, Department of Obstetrics and Gynaecology, Basasveshwara Medical College and Hospital, Chennai, Chitradurga, Karnataka 577501, India. ²Postgraduate, Department of Obstetrics and Gynaecology, Jawaharlal Nehru Medical College and Hospital, Nehru Nagar, Belgaum, Karnataka 590010, India.

Corresponding Author: S Sowmya, Assistant Professor, Department of Obstetrics and Gynaecology, Basasveshwara Medical College and Hospital, Chennai, Chitradurga, Karnataka 577501, India.

E-mail: sowmya.1512@gmail.com

Received on 03.08.2019; Accepted on 18.11.2019

Abstract

Introduction: Twin gestation is a challenge in obstetrics constituting nearly 1% pregnancies. Associated with maternal and fetal complications, approximately 10% perinatal mortality.

Aims and objectives: Studying the maternal risk factors, its effects, complications and perinatal outcome in twin gestation.

Materials and methods: A retrospective analysis of 28 twin pregnancies done, JSS Research and Medical Hospital, Mysore, during 20 months study. Maternal factors like age, pregnancy complicating factors, method of child birth. Fetal outcome like newborn weight and difference, NICU care was studied.

Results: This study had shown that, 75.3% mothers age was 20 to 24.5 years, 76% had spontaneous conception, 23.3% had infertility treatment 60% of the multigravida and 59% had twins. Half of the mothers had risk factor like anemia 50%, hypertension 30%, 75.6% had premature babies, 23% full-term pregnancies. Of the 56 babies, 53% had very low birth weight, 28 babies needed NICU care. Fetal death of 12. No maternal mortality noted.

Conclusion: Health sector has to give proper guidance to the antenatal woman for better output of mother and baby. Government has to implement necessary programmes to take care of multiple gestation mothers. Better obstetric care, neonatal care, good health services are needed.

Keywords: Twin pregnancy; Anaemia; Preterm; Low birth weight.

Introduction

Multifetal pregnancy are more common today due to the more use of artificial methods of reproduction, due to infertility and where multiple gestations are more likely to occur naturally.^{5,6}

Worldwide, the highest incidence is found in sub-Saharan Africa 20 per 1,000 deliveries compared to 5-6 per 1,000 birth in Asia.^{3,4} Twin gestation is a result of fertilization of 2 different ova (dizygotic) and about one-third of cases arise from division of a single fertilized ovum into two separate embryo (monozygosity).²

Maternal risk factors leading to adverse outcome of anemia hypertension, Antepartum and post partum bleeding pre-term labor.

Babies are associated with low birth weight, fetal weight discordance anomalous baby, birth hypoxia, trauma during delivery leading to NICU care causing increase neonatal mortality.

Materials and Methods

This study included, a retrospective analysis of 28

women with twin pregnancies, over a period of 20 months with 7 months of gestation (28 weeks) admitted for delivery in labor room, in department of OBG, JSS medical college, Mysore. The pregnant women with twin gestation of 28 completed weeks are noted in my report.

The pregnant women with Gestational age less than 28 weeks, women with pre-existing medical disorders like chronic hypertension, pre-gestational diabetes, cardiac disease, renal disease or collagen vascular disorder were excluded from the study. All the pregnant women selected were subjected for detailed obstetric history, family history of twins, intake of ovulation induction agents were taken.

General physical examination was done to see pallor BP, icterus. Abdominal checkup done see the presenting part, lie, position, size and its relation to birth canal and FHS were noted. Per vaginal examination done to see leaky membranes, bleeding PV, assess pelvis and monitoring stage of labor

Placental examination done to confirm the

chorionicity. Record maintain of method of delivery weeks pregnancy, time of birth, sex, Apgar, are seen. Report was taken in antepartum, intrapartum and postpartum till the patients were discharged. The data obtained was analyzed using frequencies and percentages.

Results

Majority of the women (75.3%) in this study were of 20–25 years of age group. About 60% were multigravida and 40% were primigravida. Of these, 76.0% had spontaneous conception, 23.3% had artificial methods of reproduction (Table 1).

Sixty percent of the study subjects had twins (DA/DC). About 75.6% had preterm birth, 23% had full-term birth with mean gestational age 36–38 weeks. The mean gestational age in the study was 35.4 weeks. Common presentation during delivery noted was vertex in which spontaneous delivery were 13 Versus 15 LSCS having malpresentation of one twin (Table 1).

Table 1: Basic characteristics of the study subjects

Basic characteristics	Age	Number	Percentage (%)
Age group	20–25 years	22	75.3
	25–30 years	4	16
	> 30 years	2	9.6
Gravida	Primigravida	12	40
	Multigravida	16	60
Mode of conception	Spontaneous	21	76.0
	Infertility treated	7	23.3
Gestational age	28–32 weeks	3	10
	32–34 weeks	5	16.6
	34–36 weeks	13	50
	>36 weeks	7	23.3
Mode of delivery	Vaginal delivery	13	46.6
	Cesarean section	15	53.3
Indications for cesarean section	Non vertex	9	56.25
	Previous section	4	25
	Fetal distress	3	18.75

Most of the women had antenatal complications including preeclampsia, eclampsia, oligohydramnios and hypothyroidism.

Anemia was more likely seen maternal complication during the pregnancy. This study also revealed that PPROM was noticed in 20% of the study subjects (Table 2).

Table 2: Maternal complications

Maternal complications	Frequency	Percentage (%)
Pre eclampsia	9	30
Eclampsia	1	3.3

Maternal complications	Frequency	Percentage (%)
Oligohydramnios	2	6.6
Anaemia	14	50
GDM	1	3.3
Hypothyroid	3	10
PROM	8	10
PPROM	6	20
Cord prolapse	1	3.3

Of the 58 twin babies, 57% weighed between 1.5 and 2.5 kg, with 83% with weight discordance <500 gm (Table 3).

About 50% of the newborns needed the NICU

admission because fetal complications and observation after delivery. Prematurity was major problem in patients with twin pregnancy (Table 4).

Table 3: Birth weight of the babies born to pregnant women with twin pregnancy

Birth weight	Twin 1	Twin 2
<1 kg	0	2
1-1.5 kg	6	4
1.5-2 kg	4	5
2-2.5 kg	12	11
>2.5 kg	6	6

Table 4: Neonatal mortality

Cause of death	Number	Percentage (%)
IUD	2	3.3
Cord prolapse	3	3.6
Birth asphyxia	5	7.0
Respiratory distress syndrome	8	14.6

Discussion

Multiple gestation is challenging with antepartum, intrapartum as well as fetal complications.⁷

Majority of the women studied, 75.3% were in mean between 20 and 25 years. Present study shows higher incidence of twins among multigravidas compared to primi, as supported by study conducted by Chowdhury S et al.,² that twins were more common in multigravida (64.2%).² Of these, 76.6% had spontaneous conception, 23.3% had artificial methods of reproduction. Sixty percent had twins (DA/DC).

Yuel Veronica Irene et al. performed review of 200 multifetal gestations. They observed higher risk of antenatal and perinatal complications in multiple pregnancies.⁷ My present report concludes common risk factors noted are anemia 50% preterm birth 76% severe preeclampsia (30%), which

were similar to the study conducted by Naushaba Rizwan et al., where 84% patients had preterm labor anemia (65.6%) and hypertension (31.2%).⁸ In our study, 46.6% 13 had normal vaginal birth compare to 53.3% 15 LSCS. Most of the babies delivered at 35.4 weeks.

Average birth weight amount both twins were in the range of 2-2.5 kg as supported by studies by Chowdhury et al.¹ NICU admissions were required in 28 babies (50%) and there were 13 perinatal deaths (21.6%), of these 2 had IUD, 7 due to RDS due to prematurity and LBW. Adesina et al.,⁹ Masuda et al.¹⁰ also reported similar perinatal mortality rate.

A study on perinatal outcomes of multiple births in Bolajoke et al.¹¹ showed that multiple births are associated with prematurity (<34 weeks) LBW, less than 2.5 kg, IUGR 5 min Apgar score <7 and NICU care. There is no maternal mortality in my report consistent with study by Chowdhury.¹

Conclusion

Multiple gestation a challenging in obstetrics complicating both mother and baby. Healthy mother and healthy baby should be the motto of all the health care services provided by government.

References

1. Chowdhury S, Hussain MA. Maternal complications in twin pregnancies. *Mymensingh Med J* 2011;20(1):83-7.
2. Qazi G. Obstetric and perinatal outcome of multiple pregnancy. *J Coll Physicians and surgeons Pakistan* 2011 March;21(3):142-5.
3. Bortolus R, Parazzini F, Chatenoud L, et al. The epidemiology of multiple births. *Hum Reprod Update*. 1999;5:179-87.
4. Hoekstra C, Zhao ZZ, Lambalk CB, et al. Dizygotic twinning. *Hum Reprod Update*. 2008;14:37-47.
5. Chittacharoen. A pregnancy outcome of twin pregnancy in Ramathibodi hospital. *Journal of Med Assoc Thai*. 2006;89:576-80.
6. American society of reproductive medicine. Multiple pregnancy and birth, considering infertility treatment: twin, triplets and higher order multiples; 2004.
7. Irene YV, Vaneet K. An analytical study of pregnancy outcome in multifetal gestation. *J. Obstet Gynecol India* 2007;57:509-12.
8. Rizwan N, Abbasi RM, Mughal R, Maternal morbidity and perinatal outcome with twin pregnancy. *J Ayub Med Coll Abbottabad*. 2010;22(2):105-07.
9. Isiaka-Lawal S, Adesina KT, Saidu R, et al. A Review of Twin Gestation in a Tertiary Health Institution in North Central Nigeria. *Research Journal of Medical Sciences* 2009;3(6):198-201.
10. Masuda S, Sabera K, Kumar SA, et al. Maternal and Perinatal Outcome of Twin Pregnancy in a Tertiary Hospital. *Ibrahim Card Med J* 2011;1(2):35-39.
11. Olusanya, Bolajoko O. Perinatal outcomes of multiple births in Southwest Nigeria. *Journal of Health, Population and Nutrition* 2011;1:23.