

Assessment of twin pregnancies- A clinical study**Rishika Raj¹, Swati Dubey^{1*}, Pankaj Mishra²**¹*Assistant Professor, Department of Obstetrics and Gynaecology, Mayo Institute of Medical Sciences, Barabanki, Uttar Pradesh, India*²*Professor, Department of Community Medicine, Mayo Institute of medical Science, Barabanki, Uttar Pradesh, India***Received: 03-05-2021 / Revised: 11-06-2021 / Accepted: 30-06-2021****Abstract**

Background: Multiple births are much more common today than in the past. Throughout the world, the prevalence of twin pregnancies varies from approximately 2-20 /1000 live births. The present study was conducted to assess twin pregnancies. **Materials & Methods:** 102 cases of twin pregnancies underwent USG examination performed with Toshiba machine. Factors such as mode of delivery and antepartum maternal complications were recorded. **Results:** Mode of delivery was vaginal in 40, LSCS in 54 and instrumental in 8 cases. The difference was significant ($P < 0.05$). Maternal complications comprised of PPRM in 7, GDM in 12, GHTN in 16, Oligohydramnios in 6, preterm labour in 34 and anaemia in 58. The difference was significant ($P < 0.05$). **Conclusion:** Most common maternal complications were GHTN, preterm labour and anaemia.

Key words: Anemia, twin pregnancy, preterm labour

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Introduction

Natural higher order multiple conceptions are usually uncommon. The reported incidence ranges from 0.01% to 0.07% of all pregnancies[1]. Multiple births are much more common today than in the past. Throughout the world, the prevalence of twin pregnancies varies from approximately 2-20 /1000 live births[2]. This surprising increase in multiple gestation rates can be explained by the social shift in women's attitude regarding child bearing which has resulted in more women choosing to postpone child bearing in favour of work and career commitments. This delayed childbearing has resulted in an increased maternal age at conception, which in turn lead to infertility treatment such as ovulation induction, in vitro fertilization and intra cytoplasmic sperm injection as one of the predisposing factors of twin gestation, since fertility decreases with age. Infants born to twin pregnancies are generally born earlier and smaller than those in singleton pregnancies, and accordingly, are less likely to survive to their first birthday. In 2011, 11% of twins were delivered very preterm (less than 32 weeks of gestation), compared with less than

2% of singletons[3,4]. Pregnancies with twins and higher order multiples are at increased risk for many maternal and fetal/child complications. Maternal mortality associated with multiple pregnancy is 2.5 times that for singleton births. Women with multiple pregnancies are also more likely to have more marked symptoms of minor ailments of pregnancy (such as nausea and vomiting) than women with singleton pregnancies[5]. The present study was conducted to assess twin pregnancies.

Materials & Methods

The present study comprised of 102 cases of twin pregnancies. The enrolment of cases was performed after obtaining written consent from all.

Data such as name, age etc. was recorded. All underwent USG examination performed with Toshiba machine. Factors such as mode of delivery and antepartum maternal complications were recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

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E-mail: dr.rishikasrivastava14@gmail.com**Results****Table 1: Assessment of mode of delivery**

Mode of delivery	Number	P value
Vaginal	40	0.04
LSCS	54	
Instrumental	8	

Table 1, Fig 1 shows that mode of delivery was vaginal in 40, LSCS in 54 and instrumental in 8 cases. The difference was significant ($P < 0.05$).

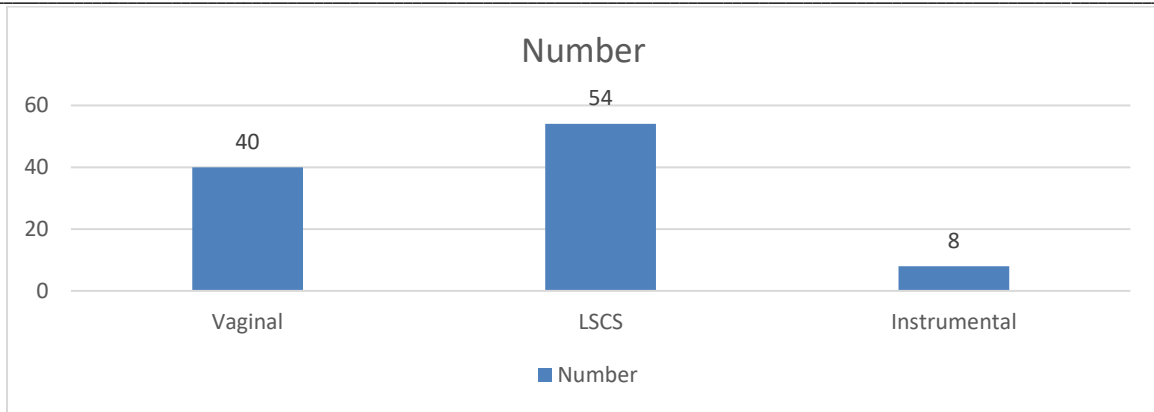


Fig 1: Assessment of mode of delivery

Table 2: Antepartum maternal complications

Maternal complications	Number	P value
PPROM	7	0.02
GDM	12	
GHTN	16	
Oligohydraminios	6	
Preterm labour	34	
Anemia	58	

Table 2, Fig 2 shows that maternal complications comprised of PPRM in 7, GDM in 12, GHTN in 16, Oligohydraminios in 6, preterm labour in 34 and anemia in 58. The difference was significant (P< 0.05).

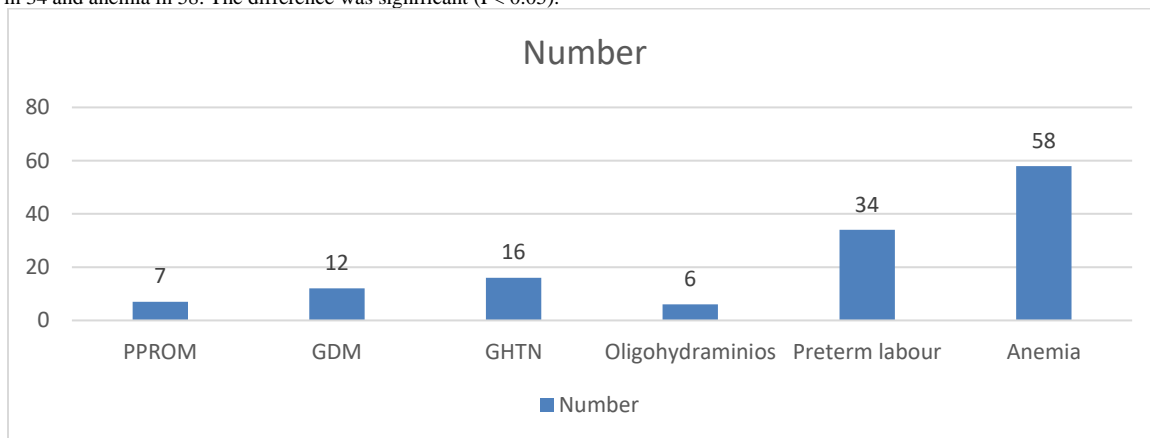


Fig 2: Antepartum maternal complications

Discussion

Twins can be classified into 2 main categories; dizygotic and monozygotic, based upon the number of eggs fertilized at conception. Dizygotic twins occur when 2 eggs are fertilized with 2 separate sperms resulting in twins that are distinct genetically but share the same uterus. Dizygotic twins (also called fraternal) are almost always dichorionic / diamniotic, as each fetus has its own set of placenta and membranes[6]. Several factors affect the rate of dizygotic twinning including maternal age, race, increasing parity, geographic area and presence of assisted reproduction. Monozygotic twins (also referred to as identical) occur when 1 egg is fertilized by one sperm with division of the embryo into 2. These twins are therefore identical genetically. Unlike dizygotic twins, the rate of monozygotic twins is fairly constant throughout the world at 1/250 pregnancies excluding pregnancies of assisted reproduction[7]. Monozygotic twins are associated with higher perinatal morbidity and mortality than dizygotic twins. Monozygotic twins can have various types of placentation based upon the timing of the division of the fertilized egg. Ultrasound is an integral part of the diagnosis and

management of twin pregnancies. Ultrasound has indeed revolutionized the care of pregnancies with twins from the initial diagnosis to guiding the delivery of the neonates[8]. The present study was conducted to assess twin pregnancies. In present study, mode of delivery was vaginal in 40, LSCS in 54 and instrumental in 8 cases. Jayaraj et al[9] determined maternal complications in multifetal pregnancy. The incidence of multifetal pregnancy was 1.55% in our institution. Preterm labour complicated 25.6% of multiple pregnancies, 4.3% were complicated by abruptio placentae and 0.9% were complicated by placenta praevia. Gestational hypertension complicated 12% of pregnancies. Majority (55.6%) were delivered by LSCS, whereas 39.2% delivered vaginally and 5.2% had operative vaginal deliveries. Postpartum haemorrhage complicated 17.9% of twin deliveries. The incidence of prematurity among babies of multiple pregnancy was 53%. The total fetal loss was 3.4%. There was no maternal mortality. We observed that maternal complications comprised of PPRM in 7, GDM in 12, GHTN in 16, Oligohydraminios in 6, preterm labour in 34 and anemia in 58. Twins require heightened evaluation in the antepartum

period in order to detect complications such as discordant growth, twin-twin transfusion syndrome, selective intrauterine fetal growth restriction, twin-reversed arterial perfusion and single fetal demise. Surveillance for monozygotic twinning should be performed more frequently given the associated risk involved with such pregnancies. Ultrasound frequency every 4 weeks is adequate to detect growth abnormalities in dichorionic twinning[10]. Evaluation of intrauterine health in single pregnancies include ultrasound fetal growth curves; Doppler velocimetry of the umbilical artery; nonstress tests; amniotic fluid assessment and biophysical profile testing. The best current evidence suggests that there are clear deficiencies in the basis for growth nomograms for twin gestations, and with the exception of femur length, most individual anatomic measurements start to deviate from singleton standards between 21 and 30 weeks' gestation[11]. Regardless of formulae used, estimated fetal weight provides the best discriminator for discordant growth. Dynamic assessment of fetal well-being is best provided by a combination of Doppler velocimetry and nonstress testing. Semiquantitative amniotic fluid assessment, other than establishing pathological conditions (eg, twin transfusion syndrome), is problematic and difficult to reproduce[12].

Conclusion

Authors found that most common maternal complications were GHTN, preterm labour and anemia.

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