



Twin Pregnancy-Role of Ultrasound

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ABSTRACT:- Objective: The incidence of twin pregnancy rate has increased from 18.9 to 32.1 per 1000 live birth. Although twins occur in approximately 1 in 80 pregnancies, corresponding to 2.6% of all newborns which account for 12.2% of preterm birth and 15.4% of neonatal deaths. For these reasons, routine ultrasound done in early pregnancy can help in reducing both maternal and neonatal complication which are three times more common in twin gestations than in singleton.

Method: A descriptive study done for two years from August 2013 to July 2015. 50 pregnant women were studied who were attending Antenatal & High risk clinics in the Dept of Obstetrics & Gynecology in Dr. B R Ambedkar Medical college & Hospital, Bangalore.

Results: Out of 50 twin pregnant women, 16 cases of Vanishing twins in first trimester and 01 case of intra Uterine Death of twins in second trimester.

Conclusion: Twin pregnancies are more vulnerable to fetal and maternal complications as compared to singleton pregnancies.

KEYWORDS:- Twin pregnancy, Chorionicity, Amnionicity, Twin Peak Sign.

I. INTRODUCTION

The incidence of Twin pregnancies has been on the rise over the last 20 years. The rise in assisted reproduction due to infertility has increased the rate of twinning. Many singleton pregnancies start off as twins, but one of the twins is absorbed, called as 'Vanishing twin'[1]

In addition to the number of the twins related to increasing use of infertility treatment, twins are also on rise with delayed child bearing[2]. Twins have a higher risk of perinatal mortality about 10-14%. So the aim of early diagnosis of multiple gestations is to reduce the perinatal mortality and morbidity. Sonography is the only safe and reliable method for the diagnosis of twins, it also allows to know the zygoty, chorionicity, amnionicity, placental location and fetal presentation as well as the detection of complications like growth discrepancy, abnormal vascular anastomoses, amniotic fluid volume and cord entanglement[3]. Approximately 14% to 25% of twins are growth restricted and 25% required admission to neonatal intensive care units[4,5]. The risk of cerebral palsy is four times greater for twins than singleton, and 17 times greater for triplets than singletons.[6,7]

Twin specific problems include twin to twin transfusion syndrome[TTTS], [8,9] Maternal complication such as pre-eclampsia and diabetes are two to three times more common in twin gestations than in singleton.[10,11] Despite these risk, twins generally result in a success pregnancy for both the parents and health care providers.

II. METHODS AND MATERIALS

It is an prospective clinical study done in the Dept of OBG, in Dr. B R Ambedkar Medical college & Hospital for 2yrs from October 2013 to September 2015. 50 Twins pregnant women were enrolled who were booked under Antenatal & Highrisk clinics in the dept.

III. RESULT

Out of 50 women, as per Age distribution, 28(56%) patients were under 20-25yrs as shown in Table 1. 32(64%) patients were primi and 18(36%) were multi parity as shown in Table 2. 16(32%) patients had family

history of twin pregnancy as shown in Table 3. 8(16%) patients had history of IVF treatment in this study as shown in Table 4. 22(44%) patients had posterior placenta as compare to 20(40%) patients had anterior placenta as shown in Table 5. 21(42%) patients had Twin Peak sign as shown in Table 6. 41(82%) patients had membrane Thickness b/w 2-3mm and 4(8%) patients had >3mm as shown in Table 7. 45(90%) patients had Diamniotic Dichoronic and 5(10%) patients had Diamniotic monochromic as shown in Table 8. 17(34%) patients had complications like 16 women had vanishing twin and 1 women had intra uterine death.

IV. DISCUSSION

From the first trimester scan until delivery of the second fetus. The use of Ultrasound in the management of twins is both ubiquitous and indispensable. Some of the most common clinical uses are determination of chorionicity, confirmation of gestational age, diagnosis of anomalies and complications like assessment of growth, amniotic fluid, placental localization and fetal position for Intrapartum management. In our study, 50 Twin pregnant women were screened randomly, trimester wise scan for maternal and fetal complication done. In our study, 16(32%) patients had vanishing twin as compared to 21.2% in the other study[12]. Criteria for diagnosis of vanishing twin by Ultrasound is by number of sac seen initially and the timing of loss of the co-twin in the follow up scan which is usually seen in first trimester. CRL measurement at first scan showing cardiac activity and two week later CRL measurement showing absent cardiac activity and same CRL measurement as previous scan.

In our study, one(2%) patient had Intra uterine death. Criteria for diagnosis of IUD are Presence of two fetuses with cardiac activity and later scans shows absent fetal cardiac activity, absent fetal movement, Spalding sign and soft tissue oedma. This findings were matched with other study[13].

V. CONCLUSION

With the increasing use of fertility drugs and delayed childbearing, twins are becoming more common. So in order to manage the risk of this, it is important to know the chorionicity and amnionicity at the earliest like in first trimester which is almost 100% accurate as compare to second trimester which is more difficult.

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Table 1: Age distribution of patients

Age in years	No. Of patients	%
<20	5	10
21-25	28	56
26-30	15	30
>30	2	04
Total	50	100

Table 2: Parity distribution of patients

Parity	No. Of patients	%
Primi	32	64
Multi	18	36
Total	50	100

Table 3: Familial H/O of twin pregnancy

Familial H/o of twin	No. Of patients	%
No	34	68
Yes	16	32
Total	50	100

Table 4: IVF treatment of patients

IVF treatment	NO. Of patients	%
No	42	84
Yes	08	16
Total	50	100

Table 5: Placentation of patients

Placentation	No. Of patients	%
Posterior	22	44
Anterior	20	40
Right Lateral	04	08
Left Lateral	03	06
Left Anterior	01	02
Total	50	100

Table 6: Twin Peak Sign of patients

Twin peak sign	No. Of patients	%
Negative	29	58
Positive	21	42
Total	50	100

Table 7: Membrane Thickness of patients

Membrane Thickness	No. Of patients	%
<2mm	05	10
2-3mm	41	82
>3mm	04	08
Total	50	100

Table 8: Chorionicity of patients

Chorionicity	No. Of patients	%
Diamniotic Dichorionic	45	90
Diamniotic monochorionic	05	10
Total	50	100