



**ORIGINAL RESEARCH PAPER**

**Gynecology**

**RELATIONSHIP BETWEEN PLACENTAL LOCATION AND STILLBIRTH**

**KEY WORDS:** Stillbirth, Placenta.

**Ani Chandanan**

Ex Senior Resident, Department Of Obs. And Gynae , Gsvm Medical College Kanpur, U.p

**Ekta Chaudhary\***

Assistant Prof., Department Of Obs. And Gynae, Gcrg Medical College M , U.p.  
\*corresponding Author

**ABSTRACT**

**BACKGROUND :** Stillbirth is still leading problem in india so there is need of effective survillance in order to improvr outcome of pregnancy  
**METHODS :** The study was prospective observational study.592 pregnant women included in our study in GSVM Medical College, Kanpur from january 2014 to july 2015 between 18-24 week .They were regularly followed till the outcome of pregnancy.  
**RESULT:**In our study, pregnant female who had stillbirth mostly had posterior placenta .  
**CONCLUSION:** Placental location may be the important tool in future for stillbirth.

**INTRODUCTION:**

Pregnancy and childbirth is universally celebrated as event.Placenta is an important connecting organ between mother and fetus , a lot of fetal problem related with placenta.The blood supply of placenta is not uniformaly distributed. As such, the size of implantation and resultant location of placenta within the uterus are likely important determinants of placenta blood flow and therefore pregnancy success.Placental location has been implicated in preterm birth ( Hadley CB et al 1990 ) ,in fetal mal position and mal-presentation, small for gestational age ( Kalanithi LE et al 2007 ) ,low APGAR score and in developmentof preclampsian(Hoogland HJ et al 1980 ,Magann EF et al 2007)

Ultrasound imaging has become an integral component of routine prenatal care for most pregnant women. Shumalia Zia et al 2012 Studied the significant association of posterior placenta and preterm labour and stillbirth.this is probably because placenta located on the posterior uterine wall may be somehow less efficient due to the anatomy of that wall.

As a result of uneven uterine blood supply,the posterior wall of the pregnant uterus is longer somewhat thicker.

Collin et al 1991 showed that cord around neck is known to be associated with posterior placenta and stillbirth may be associated with nuchal cord.

Mills and chaffe et al 1994 showed the risk of stillbirth in posterior placenta was significantly high and the explanation for that was the female with posterior placenta sleeps in supine position , it passes the weight of gravid uterus overlying placenta which might comprise placental perfusion .

Jane warland et al ( 2008)studied that whether there is a relationship between placental position and stillbirth. Placental position for a total of 124 pregnancies culminating in a stillbirth was compared with placental in 243 (matched) pregnancies resulting in live birth.Women who had posterior placenta were statistically more likely to suffer a stillbirth than women who had a placenta in any other position (95% CI 1.02-2.65 p .04).

**METHODS:**

The study was conducted in upper india sugar exchange maternity hospital , GSVM Medical college , Kanpur from january 2014 tno july 2015 on 592 pregnant women between 18-24 week over a period of 16 month.The study was prospective obsevational study. The cases were randomly allocated.

**INCLUSION CRITERIA:**

- All pregnant women with singleton pregnancy between 18 - 24 week of gestation.
- Primi as well as multipara.

**EXCLUSION CRITERIA :**

- Multiple pregnancy
- Chronic hypertention
- Chroic renal disease
- Metabolic syndrome
- Diabetes
- Associated infection
- Congenital malformation
- Thyrotoxicosis
- Antipartum heamorrhage
- Molar pregnancy

Overall 688 patient were enrolled in the study ,80 were lost in follow up ,16 had 2<sup>nd</sup> trimester abortion ,so 592 pregnant women included in our study. They were regularly followed till outcome of pregnancy .All pregnant female get their ultrasound between 18 - 24 week of pregnancy.

**STATISTICAL ANALYSIS:**

**TABLE 1 :**

Placental location	Patient not delivering stillbirth	Stillbirth	%
Anterior	107	2	4.46
Posterior	82	4	12.76
Fundal	158	2	2.4
Lateral	221	0	1.33

**TABLE 2 : Relationship Between Placental Location And Stillbirth**

Placental Location	Outcome		Odds Ratio	95 % CI
	Stillbirth	Non stillbirth		
POSTERIOR	12	82	5.927	2.574-13.64
OTHER	12	486		

Pvalue < .0001

This table was showed that the risk of stillbirth with posterior located placenta was 5.927 ( odds ratio ) with 95% CI ( 2.574 - 13.6)

**DISCUSSION :**

Out of 592 patients who were included in our study , 8 (1%) patients had stillbirth and in that group of patients 4 ( 50%) were having posterior located placenta . p value is statistically significant < .0188 . So conclusion of placental variable result , a trend toward posterior located placenta occurring more frequently in stillbirth. The risk of stillbirth with posterior located placenta was 5.927 (odd ratio) with 95% CI (2.574-13.64). The association of posterior placenta with stillbirth was statistically significant (p value< .0001). In 2 of them cord around neck was found to be the cause, other two expired due to congenital anomaly and in rest of the two cause were unknown.

**CONCLUSION :**

The objective of our study was to , the second trimester placental

location as a predictor of adverse pregnancy outcome in the form of maternal and neonatal outcome. In our study ,posterior located placenta associated with increased risk of stillbirth.

**REFERENCES :**

1. Schulman H , Winter D ,Framakides G et al.Pregnancy surveillance with Doppler velocimetry of uterine and umbilical arteries . AM J Obstet Gyaecol 1989; 160:192-6.
2. Jane Warland ,Hele MaCutheon and Peter Baghurst, Placental position and late stillbirth : a case control study 2009 Journal of clinical nursing 18 ,1602-1606 doi : 10.1111/j.1365-2702.2008.02779.x.
3. Hadley CB, Main DM,Gabbe SG .Risk factor for premature rupture of fetal membrane. Am J Perinatal .1990;374-9.(PubMed)
4. Kalanithi LE , Illuzzi JL,Nossov VB, Frisbaek Y , Abdel-Razek S, Copel JA et al .Intrauterine growth restriction and placental location. J Ultrasound Med. 2007 : 26:148-9(PubMed)
5. Hoogland M ,Ali A .Ultrasonographic placental localization with respect to fetal position in utero. Euro J Obstet Gynecol Repord Biol .1980;11:9-15.(PubMed)
6. Magann EF ,Doherty DA, Turner K,Lanneaun GS ,Jr,Morrison JC ,Newnham JP J Perinatol.2007 ; 27:914.(PubMed).