

Research Article

A comparative study between the still births and full term normal deliveries based on the clinical history of mother

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ABSTRACT

Background: To study the impact of duration of pregnancy, obstetrical history of mother and age of the mother on foetal outcome in still birth and full term normal deliveries.

Methods: After taking due permission from the ethical committee the study was conducted in the S.M.S. Medical College and attached group of hospitals.

Results: Following parameters were recorded: (1) duration of pregnancy (in weeks): it was found that females reporting with still births have significantly lowered weeks of gestation; (2) obstetrical history: it was found that both groups were well comparable without any significant difference neither in gravidity nor in parity; (3): age of the mother: there was no significant ($p>0.05$) difference found in mean age of females of both the groups.

Conclusions: Knowledge about the various factors leading to still birth is important so that that maximum attention could be paid on these causative factors so as to improve the outcome.

Keywords: Still birth, Clinical history, Full term normal delivery

INTRODUCTION

Stillbirth is defined as the delivery of an infant with no signs of life and the age of gestation being between 20 weeks and fullterm. It is one of the obstetric complications which has not been studied widely.^{1,9} Many of the infants which are still born are normal phenotypically.¹ Placental lesions seen in cases of stillbirth are of interest from the clinical point of view and are frequently seen as having an important role in the cause. However, many of the placental changes seen in stillbirth are also witnessed in live births. Those are of unknown pathogenetic significance.² Amongst the various causes of still birth some of the causes are infections, placental abnormalities, toxemia, malformations, diabetes, intrauterine growth restriction, isoimmunisation, unexplained antepartum stillbirth, advanced maternal age.³ Advancement of maternal age is in itself an independent risk factor for still birth.

Also, the risk of some other diseases like pre-eclampsia, eclampsia increases with the advancement of maternal age. Pre eclampsia is a heterogenous and multisystem disorder seen in pregnancy and is related with foetal/neonatal and maternal morbidity and mortality.⁴ The gestational age of the foetus and the parity of the mother also play an important role in the foetal outcome. Such findings are significant clinically and can be of help if timely measures are taken so as to improve the maternal and foetal outcome

METHODS

The present study was conducted on the cases reported in the Department of Obstetrics and Gynaecology of Mahila Chikitsalaya, Zenana and Gangauri Hospital, SMS MC Jaipur. Sample size of 50 cases in each group was calculated. Two groups i.e. group A (taken as control consisting of normal full term deliveries comprising of 50

patients), group B (cases of still births comprising of 50 patients). It was carried out on singleton pregnancy. These cases were studied under the following criteria-

- Age of the mother (in years)
- Gestational age of the foetus
- Obstetric history of the mother

Patient's informed consent was taken, ethical committee permission was sought and details were recorded. This study was done over a period of two years.

RESULTS

Duration of pregnancy (in weeks)

Mean and standard deviation of duration of pregnancy of females of each group were compared. It was found that females reporting with still births have significantly lowered weeks of gestation ($p < 0.05$).

Table 1: Duration of pregnancy wise comparison of ftnd and still birth (SB) group.

Duration of Pregnancy (in Weeks)	Group A (FTND) (N=50)	Group B (SB)(N=50)
Mean	38.46	28.18
SD	1.01	3.01

Unpaired 't' Test= 22.895 at 98 DF, $P < 0.001$, LS=S.

Obstetrical history

Mean and standard deviation of number of gravidity, parity and abortions of females of each group were compared. It was found that both groups were well comparable without any significant difference neither in gravidity nor in parity ($p > 0.05$).

Table 2: Obstetrical history of females wise comparison of FTND and still birth (SB) group.

Obstetrical History	Group A (FTND) (N=50)	Group B (SB) (N=50)
Gravidity (Mean ± SD)	2.14±1.01	2.14±1.09
Parity (Mean ± SD)	2.12±0.98	2.06±0.91
*Abortion(Mean ± SD)	NC	NC

*there was only one female in group SB having h/o abortion so for abortion SD was not calculated, Unpaired 't' Test (for Gravidity)= 0.00001 at 98 DF; $P = 0.999$ LS=NS Unpaired 't' Test (for Parity)= -0.423 at 98 DF, $P = 0.672$, LS=NS.

Age of the mother

Age groups of females who reported at the labor room were taken and mean and standard deviation was calculated. There was no significant ($p > 0.05$) difference found in mean age of females of both the groups.

Table 3: Age of mothers of new-borns wise comparison of FTND and still birth (SB) group.

Age (in Years)	Group A (FTND) (N=50)	Group B (SB) (N=50)
Mean	27.52	28.74
SD	3.52	5.07

Unpaired 't' Test=-1.398 at 98 DF; $P = 0.165$; LS= NS.

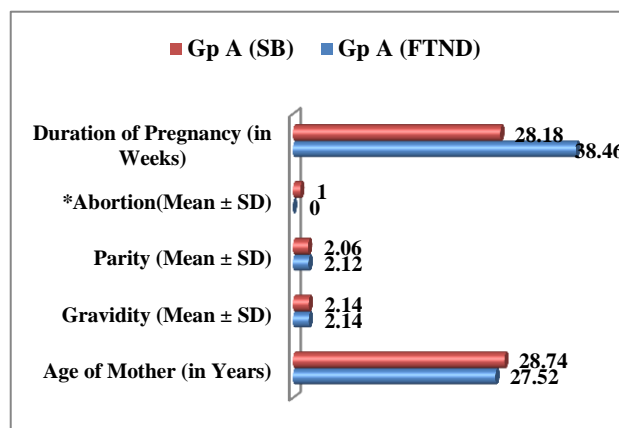


Figure 1: Duration of pregnancy, obstetrical history and age of the mother wise comparison between the two groups.

DISCUSSION

In the year 2013 Jason Gardosi conducted a multivariate analysis which identified parity (para 0 and para ≥ 3) as a significant risk factor for stillbirth.⁶

In our present study we found that there was no significant risk involved on the basis of gravidity and parity which would lead to still birth.

According to Melissa G. Rosenstein the risk of still birth increases with the increase in the gestational age.⁷ It was concluded that the risk of still birth significantly increases after 32 weeks of pregnancy.

In a study published by Amanda S. Trudell it was found that there is an increase in the risk of still birth among the small for gestational age foetuses, when delivered after 37 weeks of pregnancy.⁸ Page GM stated that the maternal age has an important role to play and there is a low percentage of foetal/infant mortality by having delivered at 39 weeks.⁵

In our current study it was found that females reporting with still births have significantly lowered weeks of gestation.

CONCLUSION

Still birth has always been a matter of global concern and it may also reflect the status of health care system of a

particular area. An attempt has been made to make use of the bio-demographic variables in determining the risk factors responsible for the occurrence of stillbirth so that timely intervention can be made in an order to solve the problem.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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