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UNDERSTANDING STILLBIRTH: A RETROSPECTIVE STUDY

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ABSTRACT

INTRODUCTION- Stillbirth is an important global health problem affecting over 7000 families every day and is associated with emotional, social & economic consequences.

OBJECTIVES- To study all the cases of stillbirths in last one year at tertiary care center in view of its etiology, pregnancy complications & associated risk factors.

METHODS- Retrospective observational study of all cases in last one year (Nov. 2018 to Nov. 2019) at tertiary care center. All cases are assessed in aspect of history, clinical findings, laboratory parameters, complications and outcome.

RESULTS: Total cases of stillbirth were 102 out of 9624 total births during study period. Stillbirth rate was 11 per 1000 total births.

CONCLUSION: Targeting at risk population groups, recording all stillbirths and improving quality of health care provided can reduce the rate further.

KEYWORDS : Stillbirth, complications, congenital anomalies.

INTRODUCTION

Despite advances in antenatal and intrapartum care, stillbirth continues to be a major burden.[1] Currently, 98% of stillbirths occur in low-to-middle-income countries.[2] Estimated proportion is 10% in developed regions and WHO estimated rate is 22 per 1000 total births. Government of India has developed an Indian Newborn Action Plan which includes efforts to reduce stillbirths to <10 per 1000 births by 2030.[3]

Stillbirth is defined as (WHO) baby born with no signs of life at or after 28 weeks of gestation. Risk factors are women with > 35 years of age, prolonged pregnancy, low socioeconomic status, smoking habit in pregnancy, women with certain medical conditions such as high blood pressure and diabetes, multifetal gestation like triplets or quadruplets. Stillbirth at term in an otherwise low risk pregnancy devastates parents with its unexpectedness. A modest reduction in India's SBR would translate into thousands of lives saved. The Indian government recognizes the need to improve pregnancy care and institutional delivery among disadvantaged socioeconomic groups who have a higher risk of maternal and fetal death.[4] Since 2005, the government has made several efforts including cash assistance and dedicated services through community health workers with a stronger focus in the states with poor health and development indicators.[4]

OBJECTIVES

To study all the cases of stillbirths in last one year at tertiary care health center and to review its etiology, pregnancy complications & associated risk factors.

MATERIALS & METHODS

This is a retrospective observational study, conducted at a Government Medical College and Hospital over a period of one year (November 2018 to November 2019). Written informed consent from subjects was obtained for participation. Women who delivered at our labour room with stillborn baby over the study period were included. Antenatal history was recorded, clinical examination findings, laboratory parameters, complications studied, obstetric managements as well as the managements of complications and fetal outcomes were recorded.

RESULTS

Total cases of stillbirth were 102 out of 9624 total births during study period. Stillbirth rate was 11 per 1000 total births.

Table 1: Demographic Profile Of Cases Under Study

Demographic variable	Frequency	Percentage
Age		
<20 years	13	13
20-30	20	20
>30 years	69	67
Parity		
Primipara	12	12
Multipara	32	31
Grandmultipara	58	57
Gestational Age(weeks)		
28-32	12	12
32-36	40	39
36-42	50	49
Place of residence		
Urban	23	23
Rural	79	77
Socioeconomic status		
Upper	12	12
Middle	30	29
Lower	60	59

Out of 102 cases 67% were >30 years of age, 57% were grandmultipara, 49 % were in between 36-42 weeks of gestation, 77% were from rural area and 59% belonged to lower socioeconomic group.

Table 2: Associated Risk Factors For Stillbirth

Associated risk factor	Frequency	Percentage
Number of ANC visits		
4 or more	05	05
Less than 4	58	57
Missing	39	38
Timing of first ANC visit		
< 3 months	38	37
3 months or later	64	63
Place of delivery		
Institution	31	30
Home	71	70
Sex of baby		
Female	43	42
Male	59	58

Mode of Delivery		
Spontaneous vaginal	76	74
Assisted vaginal	08	08
Cesarean section	18	18

Stillbirth rate was 57% in women with less than 4 ANC visits and women who visits health care facility first time in pregnancy after 3rd month of gestation have stillbirth rate of 63%. Home delivery is an important factor contributing for 70% of total stillbirths. Out of all stillborn babies 58% were male babies. There was higher rate of stillbirth in spontaneous vaginal deliveries (74%) than cesarean section (18%).

Table 3: Complications In Pregnancy Associated With Stillbirth

Complications in pregnancy	Prevalence	Percentage
Preeclampsia & other hypertensive disorders in pregnancy	22	21
Child birth complications	18	18
Fetal growth restriction	31	30
Congenital anomalies of baby	11	11
Maternal diabetes	10	10
Abnormal fetal presentation and position	10	10

Preeclampsia, eclampsia & other hypertensive disorders in pregnancy contribute for 21%, child birth complications for 18% of total stillbirths. Out of total stillborn babies 11% were having congenital anomalies. Maternal diabetes contribute for 10% of total stillbirths and remaining 10% were due to abnormal fetal presentation and position.

DISCUSSION

The overall rate of stillbirth was found to be 11 per 1000 total births. The above findings show the impact of inequality on stillbirth, as women in the most deprived groups were at highest risk. This was identified across a number of variables which capture different aspects of deprivation; for example, poorer women, those with little education, those living in rural areas were at increased risk of stillbirth compared to more affluent and advantaged women. Pregnancy complications, including anemia, eclampsia, other hypertensive disorders, antepartum hemorrhage, abnormal fetal position and obstructed labour significantly increased the risk of stillbirth.

We found a significant disparity in the risk of stillbirth by socioeconomic status which is consistent with previous research. A systematic review of studies from developing countries showed that low socioeconomic status was significantly associated with stillbirth with a population attributable fraction ranging between 2% and 75%.[5] Maternal education and employment may act through promoting high self- esteem and empowering women to make decisions about healthcare utilization.[6] Our findings related to timing and number of ANC visits conforms to the results of other studies. Improving the quality of pregnancy care with specific measures to prevent stillbirth are important in addition to increasing coverage of antenatal care. Male sex of fetus to be associated with higher risk of stillbirth.[7] Abnormal fetal presentation and obstructed labour operate through similar mechanisms causing fetal hypoxia and stillbirth.[8] However, a stillbirth could be prevented if these complications are detected timely and managed appropriately.

CONCLUSION

Our study showed that targeting at risk population groups, recording all stillbirths and improving quality of health care provided can reduce the rate further. Improving uptake of ANC and timely identification and effective management of maternal and fetal complications could reduce preventable stillbirths. ASHA's and Anganwadi workers could play an important role in timely identification of danger signs through frequent interactions with pregnant women. Progress towards goals of poverty eradication and female education could help to reduce stillbirths.

LIMITATIONS-

There may be possibility of misclassification of stillbirth as miscarriage/ abortion or neonatal death as stillbirth.

CONFLICT OF INTEREST-NIL
FUNDING SOURCE-NIL

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