

ORIGINAL ARTICLE

Prevention of Intra uterine Fetal Deaths

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Introduction: If a Woman's baby dies inside its mother, it is very depressing for herself ,and the family members and the clinician. Some causes if are identified timely might prevent these happenings.

Objective: To find out identifiable and preventable causes of a fetal death helping prevent its incident.

Methods: An observational prospective study was done in(LGH) Lahore General Hospital in Gynae Unit 3, for a period of 1 yr from 1-1-24 To 31-12-2024. All the cases of the intrauterine fetal deaths (IUFD) were included coming to the LGH. The, literacy, age, parity, nutritional socioeconomic conditions, co existing medical disorders were being noted also

Results: Maternal causes like diabetes (DM), hypertension(HTN) , infections and Anemia were present in 45% cases, whereas fetal related causes like the Rh incompatibilities ,congenital malformations present in 20% cases. Pathology related to Placenta like antepartum haemorrhage were in 29% cases. But also 11% cases still remained unexplained.

Conclusion: : Most of these cases of the intra uterine, fetal deaths ,are due to , the reasons ,which were if managed timely and identified earlier can prevent intra uterine - death of a fetus , like DM, HTN ,Placental causes Abruption. A large %age is still classified unexplained in this modern era of the investigations and early diagnosis. Much further work is still required in finding out these reasons behind the deaths.

INTRODUCTION:

A baby who has died before birth without any vital signs and who died after a gestational age of 24 weeks in the uterus is defined as Intrauterine fetal death.^{1,2} It is a major problem for obstetricians because the mother and family suffers from severe psychological stress.^{3,4} If causes are identified ,the rate of iufd and stillbirths can be reduced in future.⁵ These are mostly overlooked in health policy. Understanding geographic- distribution also helps in forming national strategies.⁶ So its necessary to chart out the factors causing these IUFDs, and to controlling these timely in decreasing the IUFD rate. Prophylactic actions should be under taken to decrease its recurrence.⁷

WHO has reported 4 million iufds and Stillbirth death annually.⁸ It has been observed, globally, that most of these women with these conditions come from poor socio economic background.⁹ However, the cause is still not being properly researched.¹⁰

The rate of IUFD is high in underdeveloped countries , and the developed countries have been successful to reduce its rate to a quite low level.¹¹ One third of the fetal deaths result from the structurally abnormal Fetus , and placental abruption is the commonest cause.¹² Stillbirths risk increase in early pregnancy.^{13,14}

The incidence differs inthe different countries, from 5/1000 in a developed and 36 / 1000 births in countries developing.^{15,16} This may be due to the fact that Antepartum and intrapartum surveillance for fetal wellbeing has advanced in last few

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decades. The rate of IUFD represents best - marker to assessing quality of a Health care Delivery in a Society.^{17,18} Many factors considered as risk causing Intrauterine -fetal death are found.¹⁸ The death of fetal death is usually associated, with, maternal ,fetal and placenta risks factors.¹⁹ Some medical disorders of the pregnancy like the HTN ,Diabetes , Grand multiparity are also leading to the anaemia are usually maternal factors while,IUGR (intrauterine growth retardation) congenital malformations the common fetal causes. antepartum hemorrhage is one of the placental causes.²⁰

METHODS

This prospective study was conducted in Gynae Unit 3 of the Lahore general Hospital, Lahore from 1st January , 2024 to 31st December , 2024. The patients of this study, were being admitted from the out-patient department /or emergency. They all remained admitted untill expulsion delivery. Some were already came diagnosed case coming with the ultrasounds reports , the rest of patients diagnosed on doing scanning (USG) in LGH hospital. All the pts ,with dead foetus after a period 28 wks of a pregnancy were included in the study however those with less gestation excluded.

Socioeconomic condition, Age, gravidity, period of gestation, parity, previous mode of deliveries, history of previous miscarriage, history of premature labour , Rh incompatibility, previous caesarian section ,foetal anomalies, history of injection at home, history of any major surgery, manipulation by Dai, chorio-amnionitis and any prior history of APH was recorded. At admission detail examination performed.. Full Investigations including Blood group and Rh- factor, Cbc, urine R/E, clotting profile, random blood sugar, and obstetrical USG

were also performed and treatment accordingly given.

RESULTS

Details of baseline and obstetric characteristics of the study participants are shown in Table 1.

Parameter	No. of patients, n	Percentage, %
Age (years)		
<20	3	3
20–35	72	72
36–40	25	25
>40	9	9
Parity		
Primiparous	30	30
Multiparous	70	70
Socio-economic status		
Lower	78	78
Middle	22	22

Abbreviation: N, total number of participants.

Parameters	No of patients (N=100)	Percentage
Age (yrs)		
<20	3	3
20-35	72	72
36-40	25	25
>40	9	9
Parity		
Primi	30	30
Multi	70	70
Socio-economic status		
Lower	78	78
Middle	22	22

30% women were primigravida and 70% women were multigravidas. Most of the women belonged to low-income class.

A description of possible causes are shown in Table 2

TABLE 2
CAUSAL FACTORS

MATERNAL (46%)		n	%age
	HTN	14	14
	DM	18	16
	Anaemia	15	15
	Infections	2	2
FETAL(19%)	Congenital malformations	17	16
	Rh Incompatibility	3	3
PLACENTAL(14%)	APH	10	10
	IUGR	4	4
UNEXPLAINED(21%)		22	21
Total		106	

Maternal factors were 46%, fetal 19% and Placental 14% responsible for the intrauterine death of the fetuses. Still 21% remained Unexplained.

DISCUSSION

In our study the incidence of iufd was found to be 32/1000 deliveries as total 3300 deliveries took place in our unit during the period of 1 yr while 106 cases were admitted.

In current study Maternal, fetal and the placental causes were evaluated in details but still a large percentage of cases remained Unexplained.

In our study Anaemia was found in 15%, HTN was in 14 % ,DM in 18% of the patients with maternal pathology. The observations in our study were consistent with some prior research studies^{19,20}.

In other studies IUGR, 3rd trimester hemorrhage, postdate delivery (more than 280 days), and multiple pregnancy were evaluated and found that IUGR was significantly associated with IUFD. They showed that number of death in this group was significantly higher than that of the normal weight babies

The hypertensive disorders of pregnancy in the study of IUFDs was in 14.1%, 24.39% and 17%. These reported cases are comparable with the cur-

rent study in which a percentage of 13% has been found outl.^{14,17} In one of the previously conducted study ,the percentage of diabetic mothers was 10.71%.⁸ This is also similar to what our study pointed out that is diabetic women were 16%. In our study 16% patients gave birth to congenitally malformed babies, while in a study in IRAN the incidence of congenitally malformed babies was 4.3%,³ quite similar to ours.

Rh isoimmunization was found in 4% of our study group in the the cases of IUFDs whereas 4.7% was concluded in another study.¹⁹ In our study hypertension ,diabetes ,infections and anaemia makes 46% of the casual factors of IUFDs. These conditions when fully controlled and well managed can cause a large decrease in IUFD rate. Conditions like post date pregnancy, abruption , praevia, and IUGR are also preventable to quite an extent. The 21% unexplained IUFDs remain an un -resolved problem and further work is needed to further decrease the IUFD rate.

CONCLUSION

Purpose of our study is the understanding of the risk factors ,and finding a way to stop the recurrence through proper care. A very comprehensive and vigilant assessment is required for these cases to find cause and stop its recurrence. IUFDs specially due to the Maternal Medical disorders is the ONLY aspect that could be almost fully controll and prevent the IUFDs .

Health education for importance of the antenatal checkup should be given to the general population. Also nutrition, and before conception health condition should be specially improved. All the high risk women with a previous history of a IUFD must be identified and referral to the higher centers Made.

As a quite a proportion of the IUFDS are unexplained so a research in future is to be made for it.

DECLARATION OF INTEREST: The authors declare no conflict of interest.

AUTHOR'S CONTRIBUTIONS:

M.F.A: conceptualization of original scientific idea for this project and proofreading of final draft.

M.I.K: Data collection, literature review, and references.

S.N: Data collection, data analysis, and write-up

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