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A CLINICAL STUDY ON OUTCOME OF IUFD IN 250 BEDED DISTRICT HOSPITAL MANIKGANJ

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ABSTRACT

Introduction: One of the most sensitive indicators of maternal and perinatal health is intrauterine fetal death. Though in about (25-35%) of cases the cause remains unknown, it accounts for half of all perinatal deaths. This study was carried out to observe the maternal and fetal factors and outcome associated with intrauterine fetal death. **Objective:** To assess the incidence and outcome of pregnancy with intrauterine fetal death. **Material and method:** This was a retrospective and observational single center study. 36 pregnant women both primi and multi with IUFD were included in this study. These patients were admitted and treated in the department of Obstetrics and Gynaecology in 250 beded district hospital, Manikganj from October 2020 to March 2021. After admission full history including patients age, parity, duration of pregnancy, past obstetric history, past history of IUFD were taken. **Result**: A total of 36 intrauterine fetal death were reported amongst 958 pregnancies during the study period. The incidence rate of intrauterine fetal death was 37 per thousand live births. 28 cases (77.78%) were either no or irregular antenatal checkup. The other observations were maximum patients in age group of (25-29yrs). Previous history of IUD (11.11%), gestational hypertension and preeclampsia in (27.78%), GDM in (11.11%), antepartum hemorrhage (8.33%), congenital malformations in (8.33%) cases. **Conclusion:** The incidence of intrauterine fetal death in our population is higher than that reported from developed countries. It is possible to reduce the incidence of IUFD by 1) Preconceptional genetic counselling so to identify the pregnant women at risk.2) Develop a referral system so identify and referral of high-risk mother to feto maternal medicine specialist.

KEYWORD: Intrauterine, stillbirth, fetal death, pregnancy.

INTRODUCTION

An intrauterine fetal demise (IUFD), or stillbirth is defined as a death that occurs in utero or during delivery after the completion of the 20th week of pregnancy or the death of fetus that weighs 500 gm or more in utero or during delivery.[1] It is an obstetric death accounting for approximately half of perinatal deaths. The mode of antepartum and intrapartum surveillance for fetal well-being has advanced in last few decades.[2] It has been seen that there are so many maternal conditions and diseases that are associated with poor obstetrical outcomes.[3] IUFD is an important indicator of maternal and perinatal health of given population.[4] The aim of this study was to analyze the maternal conditions associated with fetal death, fetal factors and maternal complications and to find the preventable causes of fetal death.

OBJECTIVE

General Objective

- To assess the incidence and outcome of pregnancy with intrauterine fetal death.

Specific Objective

- To study the clinical profile of patients with IUFD
- Analyze the outcome of mother and fetus in intrauterine fetal death

MATERIAL AND METHODS

This was a retrospective observational study. A total of 36 intrauterine fetal death were reported amongst 958 deliveries. These patients were admitted and treated in the department of Obstetrics and Gynaecology in 250 beded district hospital, Manikganj. Study period: October' 2020- March' 2021.

Methods

After admission full history including duration of pregnancy, past history of IUFD, past obstetric history was taken. Pregnancy of more than 28 weeks duration were included in this study. Babies born below 28 weeks of gestation, fetus weighing below 1000 gm and twin babies were excluded.

Gestational age was determined from LMP and from early USG. The complaints included a period of amenorrhea, duration of labor pain, bleeding per vagina, pregnancy induced hypertension, decreased or loss of fetal movements. The obstetrical history included parity, abortion, MR, IUD, PROM, Preterm labor, neonatal death, lower segment caesarean section (LSCS). Ante partum hemorrhage (APH) or PIH in a previous pregnancy. Examination included recording of pulse, BP, Temperature, Fundal height.

Sterile prevaginal examination was done to assess cervical condition e.g. effacement of the cervix, dilatation of the cervix, bleeding per vagina if any, presenting part, membrane, pelvis. The findings, investigation reports all were recorded. Plan of management was decided on cervical condition and intervention already made.

The details of the mode of delivery included vaginal delivery, L.S.C.S. Fetal outcome recorded fresh/macerated, sex of the baby, weight, congenital malformation (CMFs) if any.

RESULTS

The present study consisted of 36 cases of intrauterine fetal death which occurred during the study period. A total of 958 deliveries were conducted during the study period. The IUFD rate was 37 per 1000 live births. About 28 (77.78%) mothers had irregular or no Antenatal check up. Whereas 8 mothers (22.22%) had regular ANC. Among 36 mothers, 10 were (27.78%) primi gravida, other 26(72.22%) were multigravida. Among the medical disorders, Hypertensive disorders were associated with 10 (27.78%) APH were present in 3 (8.33%) cases. GDM were associated with 4 cases (11.11%). Regarding past obstetric history, 16 cases (44.44%) were uneventful. 6 (16.67%) cases had PROM and preterm labor. 7 (19.44%) cases had MR, abortion. 4(11.11%) cases had IUFD and 3(8.33%) cases had previous caesarean section.

Among 36, 30(83.33%) had vaginal delivery and 6 (16.66%) were delivered by L.S.C.S. Indication of caesarean section were malpresentation, placenta previa and history of previous C/S. Maternal complications include postpartum hemorrhage, puerperal sepsis, retained placenta. Among them 5(13.88%) cases were PPH. Puerperal sepsis was present in 4((11.11%) cases and retained placenta was in 3(8.33%) cases.

Table 1: Age distribution of patients (15-39 years) (n=36).

Sl	Age group (Years)	No. of patients	Percentage
1	15-19	2	5.55%
2	20-24	8	22.22%
3	25-29	16	44.44%
4	30-34	7	19.44%
5	35-39	3	8.33%

Table 1 shows maximum patients were in age group of (25-29) years.

Table 2: Distribution of the patients by parity (n=36).

Sl	Gravida	No. of Pts	Percentage
1	Primi	10	27.78%
2	2nd -4th	22	61.11%
3	>4th	4	11.11%

Table 2 shows that 27.78% of the patients were primigravida and the rest of the patients were multipara.

Table 3: Distribution of gestational age (n=36).

Sl	Gestational age (Weeks)	No. of Pts	Percentage
1	28-30	8	22.22%
2	31-32	10	27.78%
3	33-34	13	36.11%
4	35-36	3	8.33%
5	>36	2	5.55%

Table 3 shows that gestational age significantly high proportion belonged to 33-34 weeks.

Table 4: Patients under antenatal checkup (n=36).

Sl	Description	No. of Pts	Percentage
1	No checkup	6	16.67%
2	Irregular checkup	22	61.11%
3	Regular checkup	8	22.22%

Table 4 shows that 77.78% patients had irregular or no antenatal checkup.

Table 5: Past obstetric history of patients (n=36).

Sl	Previous obstetric history	No. of Pts	Percentage
1	Uneventful	16	44.44%
2	PROM, Preterm labor	6	16.67%
3	MR/Abortion	7	19.44%
4	Previous History of IUD	4	11.11%
5	Previous caesarean section	3	8.33%

Table 5 shows that in (44.44%) cases previous obstetric outcome was uneventful PROM, Preterm labor occurred in (16.67%) cases. MR/Abortion occurred in (19.44%) cases. Previous History of IUD was present in (11.11%) cases.

Table 6: Associated Risk Factors (n=36).

Sl	Associated risk factors	No. of Pts	Percentage
1	Hypertensive disorder (PIH,PE)	10	27.78%
2	Antepartum Hemorrhage Abruptio-1 Placenta Previa-2	3	8.33%
3	GDM	4	11.11%
4	Congenital anomaly Anencephaly-1 Meninga myelocele-1 Multiple birth defect -1	3	8.33%
5	Unknown	16	44.44%

Table 6 shows that hypertensive disorders were present in (27.78%) cases. Antepartum Hemorrhage were present in (8.33%) cases. GDM were present in (11.11%) cases.

Table 7: Labor Events onset of labor (n=36).

Spontaneous		Induction by misoprostol	
No. of Pts	%	No. of Pts	%
12	33.33%	24	66.67%

Table 7 shows that 66.6% patients needed induction by misoprostol.

Table 8: Mode of delivery with parity (n=36).

Gravida	NVD		Caesarean section	
	No. of Pts	%	No. of Pts	%
Primi	9	25%	1	2.78%
Multi	21	58.33%	5	13.89%

Table 8 shows that 30 cases (83.33%) had vaginal delivery, whereas 6 cases (16.67%) were delivered by L.S.C.S

Table 9: Indication of caesarean section.

Sl	Indication	No. of Pts	Percentage
1	Malpresentation	1	2.78%
2	History of previous C/S	3	8.33%
3	Placenta Previa	2	5.555%

Table 10: Details of baby (n=36).

Details of baby	No.	%
Sex		
Male	22	61.11%
Female	14	38.89%
Baby Weight		
1000-1500 kg	8	22.22%
1500-2000 kg	14	38.88%
2000-2500 kg	10	27.77%
2500-3000 kg	2	5.55%
3000-3500 kg	2	5.55%
Appearance of dead baby		
Fresh	22	61.11%
Old macerated	14	38.89%

Table 10 shows majority of dead babies (61.11%) were male and 38.89% were female.
Majority of babies born were weighing less than 2 kg. Majority of dead babies were fresh still births (61.11%) and (38.89) were old macerated.

Table 11: Maternal morbidity/complications.

Sl	Morbidity	No. of Pts	Percentage
1	Emotional Upset	36	100%
2	Postpartum Hemorrhage	5	13.88%
3	Puerperal Sepsis	4	11.11%
4	Retained placenta	3	8.33%

Table 11 shows that besides Emotional Upset; 33.32% patients had complications. Among these 13.88% Postpartum Hemorrhage, 11.11% Puerperal Sepsis, and 8.33% Retained placenta

DISCUSSION
This study consists of 36 IUFD among 958 total births. So the incidence of IUFD was 37 per 1000 live births.[5] The incidence of still births reported from developed western countries ranges from 4.7% to 12.0% which is lower than that observed in our study.[6] One reason of higher incidence in our center could be due to it was referral center at district level and all major obstetric complications identified in the periphery and other centers at community level would be referred here.[7] The another cause may be significant number of patients had lack of proper antenatal check up (77.78%) as result of their illiteracy, low socio economic status and scarcity of monitoring facilities.[8] The increased risk of fetal death is present in two extreme age group.[9] However in our study the majority fetal death occurred in the age group of 25-29 years.[10] The incidence of hypertensive disorder of pregnancy like gestational Hypertension.[11] Pre-eclampsia was 27.78%. The incidence of APH in our study was 8.33% and GDM was 11.11%. The incidence of CMF was 8.33%.[12]

CONCLUSION
The study shows that the incidence of IUFD in our population significantly higher than those reported from developed countries. This is associated with poor socio economic conditions, illiteracy, poor nutritional status, multiparity, previous history of pregnancy loss, lack of antenatal care, pregnancy induced hypertension, GDM, congenital malformations etc. Preconceptional counselling, genetic screening and proper antenatal supervision may take an important part in reduction of incidence of IUFD.

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