



PROSPECTIVE ANALYSIS OF INTRA UTERINE FETAL DEATH CASES IN ASSOCIATION WITH MATERNAL CONDITION AT A TERTIARY CENTRE OF NORTH BIHAR:-DURING APRIL 2019 -MARCH 2020.

Gynecology

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ABSTRACT

Objective:- Evaluate and understand prevalence of IUFD in relation to socio-epidemiological, etiological factors. IUFD are the principal subject of concern among obstetrician & pediatricians. The time following fetal death is extremely difficult for both family member & health care provider. It is an important indicator of maternal & perinatal health of a given population. **Method :-** This was a prospective analytical study carried out at SK medical college & hospital Muzaffarpur, BIHAR for a period of 1 year from April 2019 to March 2020. **Result :-** A total of 495 foetal losses among 9298 deliveries occurred during the study period. Incidence was found to be 53.23 per 1000 live births. 75% cases were without antenatal check up, 70% were from rural area, 69% foetal loss belonged to women below 30 years of age, 72% IUFD were preterm, 28.28% had PIH, 20.20% were with severe anaemia, congenital malformation was present in 10.50%, placental causes were found in 18.17%. 77.27% had vaginal deliveries out of which 35.52% had spontaneous expulsion. 42.25% were delivered by various methods of induction. Rest of cases with failed induction or high risk cases 74(14.95%) underwent LSCS. 26(5.25%) came with rupture uterus during the study period. **Conclusion:-** Incidence rate is too high in our centre as patients come referred from distant large section of uneducated, poor community. This emphasizes need of universal ANC and early identification of high risk case. Promotion of institutional delivery decreases the incidence of IUFD and it will reduce perinatal mortality definitely.

KEYWORDS

IUFD :- intrauterine fetal death, PIH - pregnancy induced hypertension, LSCS – lower segment caesarean section

INTRODUCTION:-

National centre for health statistics defines IUFD as death prior to complete expulsion or extraction from its mother of product of conception; irrespective of duration of pregnancy, excluding induced termination of pregnancy.

A death that occurs prior to 20 weeks of pregnancy is classified as missed abortion.

A death that occurs after 20 week of pregnancy or foetal weight of more than 500 gm is IUFD.

The frequency of IUFD varies worldwide; & depends on the quality of medical care.

Underreporting in developing country like India is common, so statistical comparison is more difficult.

The etiology of fetal demise is unknown in 40-50 % of cases. In rest of the cases of fetal death etiology is clearly identified. It can be due to maternal condition, fetal condition or placental pathology which requires routine & regular antenatal care for better obstetric outcome. Ante partum & intrapartum fetal death constitute 2/3rd of pregnancy wastage. In recent few decades we have advanced methods for antepartum & intrapartum fetal surveillance for improving perinatal outcome.

Present study aims to analyze maternal condition associated with intrauterine fetal death.

MATERIAL & METHOD:-

All consecutive series of patients coming to Ante natal clinic & Labour room emergency of Sri Krishna Medical college from April 2019 to March 2020 were included in the study.

The patient presented with chief complaint of decreased or loss of fetal movement, history of leaking or bleeding per vagina.

The assessment of gestation age was based on menstrual history confirmed by USG. The O/H included parity, abortions, stillbirth, neonatal death, L.S.C.S, preterm delivery, APH, or any medical disorder.

History regarding menstrual cycle, past history, personal history, obstetric history, general examination, local examination finding per vaginal, relevant investigations were noted on a pre designed proforma.

All women with gestational period beyond 20 weeks to term pregnancy & during labour having normal/malformed fetus were included in the study. Diagnosis of IUFD was confirmed by USG by absence of fetal heart pulsations.

RESULT:- The present study consisted of 495 cases of IUFD which occurred during the study period of 1 year from April 2019 to March 2020. A total of 9298 deliveries occurred during the study period. The incidence of IUFD was 53.23 per 1000 live birth during the study period.

Table 1 :- Demographic Profile

Distribution according to antenatal booking

Cases	Number	%
Unbooked	371	75%
Booked	124	25%
Total	495	100%

There was 495 IUFD cases in in which 371(75%) were without any ANC & rest 124(25%) had ANC. Distribution of cases according to area

Case	Number	%
Rural	346	70%
Urban	149	30%
Total	495	100%

Out of total IUFD 70% belonged to rural area. Distribution of cases according to Maternal age

Cases	Number	%
<20	95	19.82%
20-25	243	49.23%
26-30	106	21.36%
31-35	38	7.69%
>35	13	2.62%

Majority of fetal deaths (69%) occurred before 30 years of age because early age of marriage is prevalent in our part of society. Distribution of cases according to gravidity in IUFD

Cases	Number	%
G1	174	35.04%
G2	134	27%
G3	69	14.01%

G4	55	11.11%
G5	35	7%

Primigravida has maximum fetal death due to defaulter in antenatal check-ups.

Distribution of cases according to gestational age of IUFD.

Cases	Number	%
20-28 weeks	82	16.56%
28-32 weeks	153	31.11%
32-38 weeks	122	24.61%
38-40 weeks	107	21.53%
Post-dates	31	6.26%

Majority of IUFD were preterm i.e. 357 (72%)

Table2:- Maternal condition

Distribution according to maternal diseases associated with IUFD

Cases	Number	%
PIH/Eclampsia	140	28.28%
Anemia	100	20.20%
Jaundice	17	3.43%
Heart diseases	16	3.23%
Diabetes Mellitus	6	1.21%
Labor complications	16	3.23%
Placental causes	90	18.18%

PIH/Eclampsia is the most common cause of IUFD followed by severe anemia in present study.

Placental risk factor associated with IUFD

Cases	Number	%
Accidental haemorrhage	42	8.48%
Placenta Praevia	48	9.69%

PLACENTAL CAUSES CONTRIBUTES TO 18.17% OF IUFD

Table 3:- Foetal condition in IUFD case

Cases	Number	%
Congenital anomaly	52	10.50%
IUGR with severe oligohydramnios	38	7.68%
Multiple pregnancy	12	2.42%
Rh incompatibility	8	1.61%
Unexplained	52	10.50%

Congenital anomaly followed by unexplained remains main cause due to poor antenatal & prenatal screening.

Distribution according to gender in IUFD/

Cases	Number	%
Male	286	56.78%
Female	209	42.22%

Table 4 :-Distribution of cases according to method of delivery in IUFD

Cases	Number	%
Induction	209	42.25%
Spontaneous	176	35.52%
Operative	110	22.22%

Distribution of cases according to mode of delivery

Cases	Number	%
Vaginal	385	77.77
Operative	11	22.22
Forceps	10	2.0
LSCS	74	14.95%
Laparotomy for rupture uterus	26	5.25%

DISCUSSION:-

The actual incidence of IUFD is not possible due to underreporting of all cases. According to this study, the incidence of IUFD is 53.23/1000 live births. The incidence of IUFD reported from western countries ranges from 4.7% to 12.0%. This is lower than that observed in present study. A very high incidence of fetal demise was obtained in present study because our institute is the single largest tertiary centre catering the North Bihar, so most of the complicated and high-risk cases are referred to our centre. The incidence rate reported from various centres in India is 24.4- 41.9%. The other reason could be a high number of

unsupervised pregnancy due to various reasons like illiteracy, low socioeconomic status and the paucity of monitoring facilities in rural areas.

Nutritional deficiency and anaemia are leading cause of poor pregnancy outcome. Majority of our patients were anaemic. In our study, however, the fetal deaths were more in the age group of 20-30 years. This is because most of the women in our region complete their family before 30 years of age.

Increased risk of IUFDs is seen amongst primigravidas. The incidence is higher amongst women with irregular or no antenatal care. This is also reflected in our study where the rates were highest amongst the unsupervised pregnancies. The incidence of APH in our study was 18.17%, which was higher than that reported in other studies. The incidence of intrauterine growth retardation in our study was 38 (7.68%). The other studies have reported the incidence from 2.2% to 18.4%.

The incidence of gestational hypertension in this study was 28.28% which is similar to that reported in other studies. The incidence of congenital malformation was 10.50% which was also similar to that reported from other studies.

CONCLUSION :-

Hypertensive disorder of pregnancy, anaemia, APH, congenital anomalies were leading causes of IUFD. Majority of women who had IUFD were unbooked and had emergency admission and had not received adequate antenatal care. The associated risk factors in a community seems to be preventable, hence we should pay attention to health education with emphasis on antenatal care and its benefit, improved preconceptional environment, nutrition, micronutrient status especially iron and folic acid intake.

Identification of high risk cases and their timely referral to higher centres may save the baby. Patient compliance is important in reducing most of these preventable foetal losses. However unexplained cause of IUFD seen in 52 (10.50%) cases. In case of unexplained IUFD fetal autopsy, placental and membrane examination could be helpful for finding out causes. Patients should be counselled in a positive way for fetal biopsy so as to explore unexplained IUFD and plan future pregnancy accordingly.

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