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Intra Uterine Fetal Death: An Observational Study

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ABSTRACT

Introduction: It is a psychological and emotional shock to mother when she comes to know that her baby has suddenly died in utero. Intra uterine fetal death (IUFD) is a traumatic event which occurs in for about 1% of all pregnancies.

Aims and Objectives: To diagnose IUFD as early as possible and determine risk factors, aetiology, mode of delivery. Also to minimize complications of IUFD and maternal morbidity and mortality.

Method: A prospective study of two years was done to study 100 cases of Intra uterine fetal death. On admission, patient's detailed history was asked, examined thoroughly, and managed accordingly.

Results: A total of 100 cases of IUFD were studied over two years span at our institute. 76% of cases were emergency cases. 45% of cases had not taken any antenatal visits. 9% of cases were asymptomatic. 27% of patients presented with labour pain. 14% of patient had previous bad obstetric history. In 21% cases caesarean section was required. 9% of patient delivered spontaneously. In 29% of cases, cause was unknown, abruptio placenta accounted for 17% of cases. 12% cases developed DIC. Maternal mortality rate was 2%.

Conclusion: Thus this study shows the importance of antenatal care, small family norm and medical care. The rate is lower where modern facilities of antepartum and intrapartum feral surveillance are available.

Introduction

God had given us a life to see this beautiful world and to praise the wonders designed by him, but it becomes miserable when life finishes before opening eyes into outer world.

It is indeed a psychological and emotional shock. IUFD is a traumatic event which occurs in 1% of all pregnancies.

Though fetal medicine is evolving as an upcoming branch and there are ample modern facilities for antenatal fetal well-being assessment, we have not been able to justify such unexplained sudden intrauterine death.

According to WHO[1], intrauterine death is defined as "Death prior to complete expulsion or extraction of a product of human conception from its mother, irrespective of duration of pregnancy and which is not an induced termination of pregnancy, death indicated by the fact that after such separation fetus does not breathe or show any evidence of life such as beating of heart, pulsation of cord, or definite movement of voluntary muscles. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps".

As per WHO classification of fetal death it is classified into following groups :

1) Early fetal death: Death occurring before 20 weeks of gestation.
2) Intermediate fetal death: Death occurs after 20 weeks but before 28 weeks of gestation.
3) Late fetal death: Occur after 28 weeks of gestation and before delivery of baby.

When gestational age is not known death of a fetus weighing more than 500 gm is considered as IUFD. In comparison with countries with same economic and political development, stillbirth rate is higher in India which demands improvement in obstetric care; various programmes like RCH II should be implemented to improve perinatal mortality.

The worldwide stillbirth rate declined by 14.5% from 22.1 stillbirths per 1000 births in 1995 to 18.9 stillbirths per 1000 births in 2009.

Materials and Methods

It is a study of 100 cases of intrauterine fetal death in third trimester of pregnancy, carried out at our institution.

On admission, patient's detailed history was asked, examined thoroughly, and managed accordingly. The data was recorded. Patient was watched throughout the labor, various stages with their complications were managed. Fetal demise is diagnosed by visualization of the fetal heart and the absence of cardiac activity.

In this study post mortem of fetus was intended but due to religious beliefs, patient relatives refused.

Results

In our study 76% of cases were emergency cases. 45% of cases had not taken any antenatal visits. This shows the importance of antenatal care, small family norm and medical care. The rate is lower where modern facilities of antepartum and intrapartum fetal surveillance are available. People should be made aware of the advantages of antenatal clinics. 75% of patients were from 21-30 years of age group. 27% of patients presented with labour pains, 18% of patients had complaint of loss of fetal movements. 9% of cases were symptomless (Table 1.)

For patients who came with labour pains, decision to monitor progress or to augment the labour with oxytocin drip was taken and coagulation profile was monitored compared to various studies which report the use of misoprostol[4] . Vaginal delivery was accomplished in most but the rate of caesarean done for maternal interest was still high, 21%.9% delivered spontaneously.14% of patient had previous bad obstetric history. 61% of fetuses were below 2 kg weight. 70% of IUFD were fresh while 30% were old macerated. In 29% of cases, cause is unknown, abruptio placenta accounted for 17% of cases and oligoamnios accounted for 12% of cases (Table 2.)

12% cases developed DIC which was corrected by blood component therapy (Table 3). Complication rate was kept to minimum by using full aseptic measures, antibiotics blood transfusion and constant watch for coagulation profile. Maternal mortality rate in this study is 2%. Maternal and perinatal mortalities reflect quality of obstetric care, incidences of IUFD indicates the quality of fetal care.

Discussion

Incidence of IUFD is lower in metropolitan cities and institutes where modern facilities are available. The incidence should further decrease with increasing facilities of family planning, MTP, Obstetric and Neonatal care, methods of fetal surveillance and rising caesarean rate. Still IUFD is a major cause of perinatal mortality in India.[2] Incidence of IUFD is more in emergency patients who have not taken antenatal care. In present study it is 75%.[2]So, fetal loss could have been prevented if patient got registered and complications like anaemia, toxaemia, eclampsia etc. were diagnosed and treated earlier by admission, expert supervision, monitoring and successful delivery. Most of the patients are from lower socio economic class. Due to poor nutrition, lack of education, poor medical care leading to increased incidence of diseases like Anaemia, Malnutrition etc. and financial stress, inability to afford costly medical treatment and hospital stay.[2] It is known that the incidence of IUFD rises with increasing parity. So, multipara are at higher risk, as it is evident from the data. Multi parity is commonly seen in lower socio economic class. Only 17% of patients came with loss of fetal movement before labour pain started. That shows ignorance of patients regarding fetal movement perception. Majority of the patients had spontaneous onset of labour. Symptomless patients are admitted on diagnosis during ultrasonography examination. Past obstetric history of pregnancy loss has chances of recurrence. 21 patients had reproductive loss in form of abortion, IUFD or premature delivery. One of the patients had previous history of 2 IUFD and patient was negative mother with no history of any ANTI-D injection. So, such patients will require strict vigilance and supervised care.

A case report was presented by A. Halder at AIIMS[5], New Delhi on consecutive third trimester IUFD which shows detectable associations with very low maternal serum alpha feto protein (< 0.15 MOM MSAFP), turbid liquor amnii and extensive placental pathology viz., fibrosis, hyalinization, infarction, narrowing as well as poor vascularization of chorionic vessels and recurrent third trimester IUFD. Operative interventions were required in 51 (10.5%) of patients. These included forceps application, vacuum extraction, versions, destructive operations and caesarean section. Caesarean section was performed in 2.7% of cases mainly for life threatening maternal indications. Maternal mortality (19.6%) was attributable mainly to the underlying disorder and unrelated to route of delivery. It was seen from the data that the majority (93%) of the cases were delivered within 10 hours after admission or detection of fetal demise, which decreases the chances of disseminated intravascular coagulopathy. The most common etiology is idiopathic (35%). The second one is PIH (29%) including accidental haemorrhage. 12% of the IUFDs were due to an abruption, among them; almost more than 2/3rdwas having PIH.

Severe oligo and fetal distress leading to meconium aspiration were also common. Severe preeclampsia and eclampsia caused fetal demise in 17 cases. Obstructed labour leading to still birth suggest that skill and decision about route of delivery can prevent fetal death.

Cord accident also account for fetal death in form of cord loop around neck, cord prolapse, true knot etc. Pregnancy with jaundice also has high perinatal mortality.

An interesting case report of 32 weeks IUFD with umbilical cord stricture with hematoma was published by D. Bhadra, T. Mandal, and S. Guha. The fetal demise was a result of impeded blood flow due to stricture[3] .It is known that disseminated intravascular coagulopathy is the most common threatening complication, study shows 19 cases with altered coagulation profile which was corrected by blood component therapy. Major causes of DIC are Eclampsia, Abruptio placentae, Jaundice, Rupture of uterus. Blood and its components transfusion were required in 23 cases. It was mainly required in cases of abruption, PPH, rupture of uterus and jaundice. PPH occurred in 5 cases. Out of them 4 cases were managed conservatively. One case required obstetric hysterectomy due to uterine rupture in case of previous caesarean section. One case of pregnancy with jaundice due to Hepatitis E Virus infection complicated with DIC +ARF. Sepsis occurred in 10 cases managed with higher antibiotics. Maternal Mortality was found in 1 case due to Jaundice complicated by DIC and acute renal failure.

Conclusion

Thus this study shows the importance of antenatal care, small family norm and medical care. The rate is lower where modern facilities of antepartum and intrapartum fetal surveillance are available.

Tables

Table 1. Mode of Presentation:

Chief complaint on admission	No. of cases (Percentage)
Labour Pains	40
Bleeding p/v.	15
Loss of fetal movement	17
Convulsion	7
Pedal edema	8
Fever	5
Leaking P/V	3
Breathlessness	1
No complaint	4

Table 2. Aetiology

Causes	No. of cases **(Percentage)**
Idiopathic	35
Oligoamnios	3
Abruption Placentae	12
PIH (preeclampsia + Eclampsia)	17
Jaundice	6
Rupture of Uterus	2
Cord accidents	4
Congenital Anomaly	6
Post maturity	4
Obstructed Labour	1
Diabetes mellitus	1
Fever	6
Epilepsy	1
Placenta previa	2

Table 3. Complications

Complications	No. of Cases
DIC	19
PPH	5
ARF	2
Obstetric Hysterectomy	1
Sepsis	10
Emotional upset	1

REFERENCE

1. www.WHO.int.com | 2. Brahmakumari et al: "Intrauterine Death – A prospective Study". The journal of Obstetrics and Gynecology of India, Sept - Oct. 2001; vol.51; p. 94-96. | 3. Debjani et al: "A rare case of Umbilical | stricture with cord haematoma". The journal of Obstetrics and Gynecology of India, March April 2002; vol.52, p. 121-122. | 4. Ezechi et al: Induction of Labour by vaginal misoprostol for IUFD. Journal of Obstetrics and Gynaecology of India: V.54, no.6, Nov. / Dec. 2004 :p.561-563. | 5. Halder et al: "Unexplained Ten Consecutive Early Third Trimester Intrauterine Deaths". The Internet Journal of Gynecology and Obstetrics. 2007. Volume 7 number 2.