

Analysis of Fetal Death in Utero

Dr. Apurva Pradiprao Thakare¹, Dr. Mitali Golechha², Dr. Shital Lad³

¹JR-3, Department of OBGY, Government Medical College and Hospital Jalgaon, Maharashtra, INDIA.

²Assistant Professor, Department of OBGY, Government medical college and hospital, Buldhana, INDIA.

³HOD, Department of OBGY, Government Medical College and Hospital Jalgaon, INDIA.

Email: apurvathakare90@gmail.com

Abstract

Background: In utero fetal death is the fetal death occurring after 22 weeks of pregnancy or 500 g birth weight if the term is unknown or corrected. The global prevalence of fetal death in uterus from 28 Weeks or fetal weight greater than 1000 g is estimated to be around 2%, with the average around 5 per 1000 births in high-income countries. **Aim & Objective:** 1. Analysis of fetal death in utero. 2. Study of risk factors of fetal death in utero. **Methods:** Study Design: Cross sectional Study. Study Center: Department of OBGY, Government medical college and hospital, Jalgaon. Study population: All the cases with fetal uterine death as per WHO definition and those who give consent were included in the study. Study duration: April 2024 to April 2025. Sample size: 100. **Results:** Majority of cases from 20-35 years group 72%, 96% pregnant women gave birth naturally and 4% delivered by caesarean section. Majority of cases etiology was PIH 38% followed by unknown cause **Conclusions:** In utero fetal deaths remain common in our country. The main causes were hypertension disorders of pregnancy. There were also some unknown causes which could be related to economic or cultural reasons. For instance, autopsies of in utero deaths and placental anatomopathology examination are not performed because of culture.

Keywords: Fetal death in uterus, Risk factors, Etiology

*Address for Correspondence:

Dr Apurva Pradiprao Thakare, JR3, Department of OBGY, Government medical college and hospital Jalgaon, Maharashtra, INDIA.

Email: apurvathakare90@gmail.com

Received Date: 14/12/2025 Revised Date: 30/12/2025 Accepted Date: 02/01/2026

Access this article online	
Quick Response Code:	Website: www.medpulse.in
	This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License . 

INTRODUCTION

Intrauterine fetal death and still birth is a tragic event for the parents and a great cause of stress for the caregiver. Defined as the death of fetus more than 24 weeks of gestation and weighing more than 500 grams IUID is major cause of pregnancy wastage. WHO definition of ^[1] still birth is 'fetal death in late pregnancy'.

The gestational age at which intrauterine fetal demise is considered a still birth varies from country to country. Some countries count demise at 16 weeks as IUID while others consider fetal demise as late as 28 weeks as IUID. the Perinatal Mortality Surveillance Report

[CEMACE, 2011] defines stillbirth as 'a baby delivered without signs of life after 24 completed weeks of pregnancy'.

ACOG refers to IUID as the demise occurring at or later than 20 weeks. In a recent RCPI [Recent clinical practice investigation guideline], stillbirth is taken as a baby delivered without signs of life from 24 weeks gestation and IUID is taken to ^[1] refer to death in utero after 24 weeks gestation.

IUID and intrapartum fetal deaths together constitute a large portion of perinatal mortality. Ante-partum fetal death contributes to about two thirds of ^[2] perinatal mortality. Prevalence of perinatal deaths in a society is the direct indicator of ^[2] the quality of antenatal care in the country. the prevalence of IUID has been reduced to a minimum unavoidable rate in developed countries; however it still remains very high in underdeveloped and developing countries.

Prevalence of IUID and stillbirth is expressed as number of fetal deaths per 1000 live births. Range of incidence varies in different countries, ranging from five in 1000 births in high ^[3] ^[4] income countries and 36 in 1000 births in developing countries.

Rate of perinatal deaths in India is 32 per 1000 live births, [35 per 1000 live births in rural areas and 22 per 1000 live births in Urban areas], still birth rates in India is 9 per thousand births, [9:1000 births in rural India and 8 in 1000 births urban India], according to the Indian [5] census of 2006.

Aim & Objective:

1. Analysis of fetal death in utero.
2. Study of risk factors of fetal death in utero

MATERIAL AND METHOD

Study Design: Cross sectional Study, **Study Center:** Department of OBGY, Government medical college and hospital, Jalgaon. **Study population:** All the cases with fetal uterine death as per WHO definition and those who give consent were included in the study. **Study duration:** April 2024 to April 2025. **Sample size:** 100

Inclusion criteria:

1. All spontaneous in uterus deaths as defined by the World Health Organization (WHO).

Exclusion criteria:

1. All pregnant women whose records indicated a pregnancy of less than 22 weeks of amenorrhea or whose fetus weighed less than 500 grams.
2. Records of intrapartum deaths, and deaths at birth.
3. Not willing to participate

Research methodology specified for data collection

Study subjects were enrolled after obtaining clearance from ethics committee. All the subjects were explained in detail about study procedure in language she understands.

Informed written consent was obtained from study participants. Predesigned and pretested study proforma was used as a tool for data collection.

Data was collected about sociodemographic characteristics, Parity, gestational age in weeks, ANC visits, Hypertensive disorders (PIH, preeclampsia or eclampsia), USG findings (Malpresentations, oligohydramnios), investigations like urine protein and CBC.

Data analysis:

All the data collected was entered in excel spreadsheet and analyzed using SPSS version 21 software. Chi square test was used to study associations and etiology of fetal death in utero. P<0.05 was considered as significant.

RESULT AND OBSERVATIONS

Table No.1: Distribution of cases according to age (N=100)

Age (Years)	Frequency	Percentage
<20	08	8%
20-35	72	72%
35 and Above	20	20%
Total	100	100 (100%)

Above table shows that, majority of subjects were from age group 20-35 yrs contributing 72 (72%) followed by 35 and above yrs 20 (20%), > 20 yrs and 08 (8%)

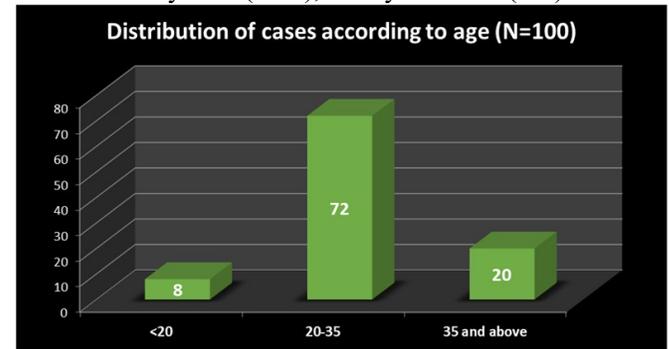


Figure 1

Table No.2: Distribution of study subjects as per ANC visits (N=100)

ANC visits*	Frequency	Percentage
<4 visits	60	60
≥4 visits	40	40
Total	100	100

ANC visits: Antenatal visits

<4 visits- Irregular or no visits, ≥4 visits: Regular visits

Above Figure shows that, most of study participants received inadequate ANC care as 60 (60%) cases with <4 visits whereas, 40 cases with ≥4 visits.

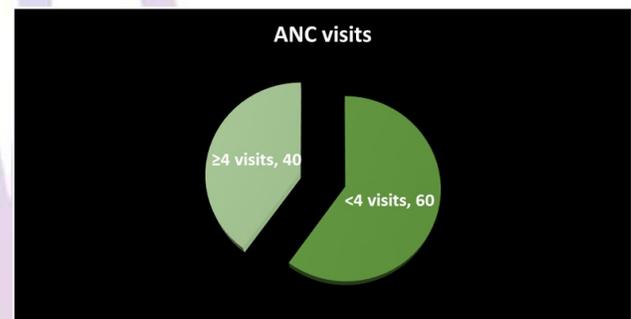


Figure 2

Table No.3: Distribution of study subjects according to parity (n=100)

Parity	Frequency	percentage
Primipara	45	45
Multipara	55	55
Total	100	100

Above table shows that, most of the study subjects were Multipara contributing 55 (55%) and 28 (28%) were Primipara 45 (45%).

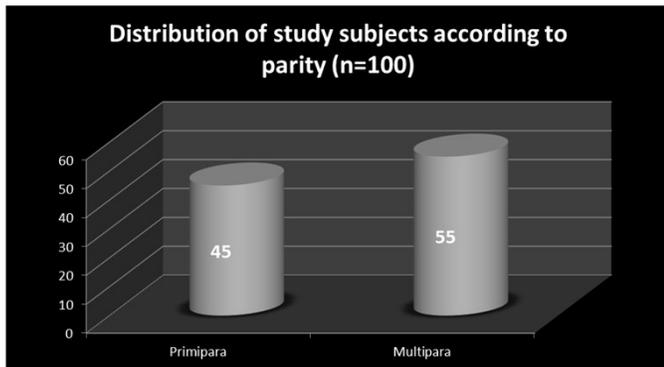


Figure 3

Table No.4: Distribution of cases according to Etiology (N=100)

Etiology	Frequency	Percentage
Severe pre-eclampsia	38	38%
RPH	13	13%
PROM	04	04%
Fœto-maternal incompatibility	02	02%
Fetal malformations	02	02%
Trauma	04	04%
Eclampsia	04	04%
Diabetes	11	11%
heart Disease	04	04%
Anemia	10	10%
Placenta previa	02	02%
Unknown cause	06	06%
Total	100	100 (100%)

The most common etiology was severe pre-eclampsia 38 cases followed by RPH 13 cases, 11 DM, 10 cases with anemia, 6 cases with unknown cause, 4 cases with trauma, 4 with eclampsia, 4 with heart disease, 2 with placenta previa, Fetal malformations in 2, Fœto-maternal incompatibility in 2 cases.

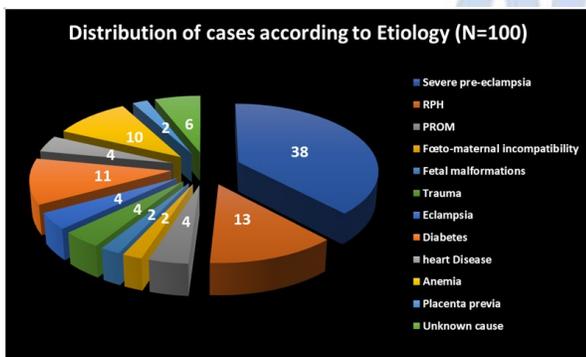


Figure 4

DISCUSSION

This cross sectional study was conducted among 100 cases at Department of OBGY Government Medical College and Hospital, Jalgaon, Maharashtra. Study duration From April 2024 to April 2025. Study population: All the cases with fetal uterine death as per WHO definition and those who give consent were included in the study.

In current study majority of subjects were from age group 20-35 yrs contributing 72 (72%) followed by 35 and above yrs 20 (20%), > 20 yrs and 08 (8%). Similar result observed in the study by Kyembwa Mulyumba Michel [6] who found that the age group of (20 - 34 years) was 72.7% and TajiLeki S [7], 62.07% in Bunia in the DRC. In Mali Traore M.[8], who found 59% of fetal death in uterus cases in patients aged 20 to 34 years. Diallo in Guinea, found that pregnant women over 30 years of age were more represented [9].

In present study most of study participants received inadequate ANC care as 60 (60%) cases with <4 visits whereas, 40 cases with ≥4 visits. Similar result observed in the study by Al Kadri *et al.*[10] he reported that the most of cases 63% received inadequate ANC care.

In present study most of the study subjects were Multipara contributing 55 (55%) and 28 (28%) were Primipara 45 (45%). Similar result observed in the study by Kyembwa Mulyumba Michel[6] who found that the majority cases with multipara 54%.

In current study most common etiology was severe pre-eclampsia 38 cases followed by RPH 13 cases, 11 DM, 10 cases with anemia, 6 cases with unknown cause, 4 cases with trauma, 4 with eclampsia, 4 with heart disease, 2 with placenta previa, Fetal malformations in 2, Fœto-maternal incompatibility in 2 cases. Similar result observed in the study by TajiLeki S [7] he reported that that most common etiology was pre-eclampsia 32%. Cabrol D [10] he reported that majority of cases with pre-eclampsia 30%.

REFERENCES

1. Clinical Practice Guideline: Investigation And Management Of Late Fetal Intrauterine Death and stillbirth, Institute of obstetrician and gynecologists, Royal College of physicians Ireland, and Directorate of strategies and clinical programmed, health service executive. Version 1.0, guideline no. 4 October 2011-revised 2013
2. Richardus, Jan H., Graafmans, Wilco C. Verloove-Vanorick, S. Pauline. Mackenbach, Johan P., the perinatal mortality Rate as an Indicator of Quality of Care in international comparisons. Medical Care, January 1998-vol 36 Issue 1-pp 54-66

3. Ruth C. Frets, Etiology and prevention of still birth, American journal of obstetrics and gynecology (2005) 193, 1923-35
4. Cousens S, Blencowe H, Stanton C, *et al.* National, regional, and worldwide estimates of stillbirth rates in 2009 with trends since 1995: a systematic analysis. Lancet 2011; 377: 1319–30.
5. Estimates of mortality indicators-Census of India website-vital statistics Chapter 4 Pg 81, statement 51 2010
6. Michel, K.M., Grace, K.E., Sosthène, T.L., Mathumo, M., Jeremy, L.O. and Bosunga, K. (2018) Mort in utéro: Fréquence et facteurs de risque dans la ville de Goma en République Démocratique du Congo. International Journal of Innovation and Applied Studies, 23, 661-666. <http://www.ijias.issr-journals.org/>
7. Taji Leki, S., Osundja, L., Kyembwa Mulyumba, M., Sangani, M., Habiragi, M., Matumo, M., Komanda Likweke, E. and Bosunga, K. (2018) Epidemio-Clinical Profile of Death in Utero in Bunia in the Democratic Republic of Congo. International Journal of Recent Scientific Research, 9, 7789-27792. <https://doi.org/10.24327/IJRSR>
8. Modibo, T.M. (2014) Etude de la mort foetale in utéro à la maternité du CS Réf du district de Bamako. Thèse Med, Bamako, p. 91.
9. Diallo, M.H., BalDé, I.S., Diallo, O., Diallo, B.S., BalDé, A., Barry, H., BalDé, M.D. and Keita, N. (2016) Mort foetale in utero (MFIU): Aspect sociodémographique, prise en charge et pronostic Maternel à la Maternité de l'hôpital régional de MAMOU. Revintscméd-RISM-2016.
10. Cabrol D, Goffinet F (2003) Fetal death in utero. Treaty of trique Obste. Flammarion me'decine-Science: 353-358.

Source of Support: None Declared
Conflict of Interest: None Declared

