

Original Research Paper

Demographic Profile and Pattern of Death of Foetus and Infants: An Autopsy Based Study in Indore District (MP)

¹Ashok K. Rastogi, ²Bajrang K. Singh, ³Sanjay K. Dadu

Abstract

It is a post-mortem based study, in this study infant and foetus included. Total 32 cases included out of which 29 cases foetus and 03 cases were infants. Out of which 53.13% cases were female, 25% cases were male and 21.88% cases sex could not determine. Most of the foetus died in 2nd & 3rd trimester contributing 75% cases, most commonly in 2nd trimester 43.75% cases followed by 3rd trimester 31.25% cases. Least number of cases had seen in first trimester 15.63%. Maximum numbers of cases was still birth 59.38%. After autopsy examination we found there were 50% cases in advance stage of decomposition and 50% (16) cases were in early stage of decomposition or decomposition not started. Even after implementation of strong act pre conceptional & prenatal diagnostic technique act (PC & PNDT Act), it is not so effective to control female feticide and infanticide. Premarital affairs are increasing the cases day by day resulting increasing illegal abortion day by day.

Key Words: Infant, Foetus, Still birth, Decomposition, Autopsy examination, Trimester

Introduction:

The reproductive mortality was classified into four components; stillbirth (28-40 weeks of foetus-hood), early neonatal death (day 0-6), late neonatal (day 7-30) and post neonatal death (day 31-364). [1]

The term infanticide comes from the Latin word **in-fans** meaning unable to speak. Infanticide means the unlawful destruction of a newly born child within one year of life; **Neonaticide** is the killing of a baby within 28 day of its birth. It is the most common crime and the perpetrator is usually the mother.

Filicide is the deliberate act of a parent killing his or her own son or daughter. [2]

Infanticide was common in all well-studied ancient cultures, including those of ancient Greece, Rome, India, China, and Japan.

The Jews and Christians were clearly against the taking of human life and generally forbid the killing of any newborn infant.

Maimonides, the renowned Jewish philosopher and physician, pointed out that a single man was first created in Genesis "to teach us that if any man destroys a single life in the world, scriptures imputes it to him as though he has destroyed the whole world." [3]

The end of the practice of infanticide in the ancient world coincided with the rise of Christianity as a major religion. The practice was never completely eradicated, and even continues today in areas of extremely high poverty and overpopulation. [4, 5] Sexism was particularly prominent in Arabia before the time of Prophet Mohammed (570-632 AD).

The Holy Koran introduced reforms that told us the occurrence of this bad practice of female infanticide before Islam he asked with censure for example how would a father account for his actions, "When the female child that had been buried alive shall be asked for what crime she was put to death?" [3]

Other reforms included the prohibition of infanticide due to economic causes.

The phenomenon of female infanticide is as old as many cultures and has likely accounted for millions of gender-selective deaths throughout history. It remains a critical concern in a number of "Third World" countries today, notably the two most populous countries on earth, China and India. [3, 6]

Studies in India have indicated three factors of female de-selection in India, which are the economic utility, socio- cultural utility, and religious functions.

Corresponding Author:

¹Assistant Professor,
Dept. of Forensic Medicine and toxicology
MGM Medical College Indore (MP)
E-Mail:ashokforensic@yahoo.com

²Assist. Prof,

³Prof

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In China where large number of infanticide occur, the cause is differ as it is due to one child policy which used by the governorate, in which any family prevented to has more than one child, this leads to increase of female infanticide due to male over referral. [7]

Filicide is also practiced in developed countries. In the United States during 1992 parents committed 290 murders of their children.

Large-scale studies of filicide have revealed that younger children are at most risk, especially those children less than six months of age. After that point, the risk lowers steadily, only to rise again in adulthood. [8]

Aims and Objectives:

- To know the demographic profile, the predisposing factors, methods of infliction and
- The role of the Forensic Pathologist in the diagnosis of suspected infanticide cases

Material and Method:

This study was done in Department Forensic Medicine, Mahatma Gandhi Memorial Medical College Indore (MP).

Post-mortem examination of all cases mentioned in this study conducted in mortuary of this department in year 2012 -2013. Cases included in this study were all intra-uterine death and infant below one year of age.

Observation and Discussion:

During study period total 32 infants and foetal post-mortem was conducted in our department. In our study 53.13% (17) cases were female, 25% (08) cases were male and 21.88% (07) cases sex could not be determined. (Table 1) A study done at Assiut Medico-legal Department during the period of 2003-2005 showed that Females represented 53.13% that is equal percent found in our study. [9]

In 75% (24) cases foetus died in 2nd & 3rd trimester, most commonly in 2nd trimester 43.75% followed by 3rd trimester 31.25% cases, least number of cases seen in first trimester 15.63%. Our findings were totally different to Rajashree Pradhan et al study which showed maximum abortion rate 60.70% in second half of 1st trimester and lowest incidence in first half of 1st trimester abortion 1.56%. [10]

Our study also differ to the Shiva Kumar BC et al and Roy Chowdhury et al study in which they also observed that majority of women 84.7% and 95% were aborted in 1st trimester of their gestation period. [11, 12] This difference was due to the post-mortem study and in first trimester foetus were so small and it easy to dispose and destroy.

Infants contributed 09.38% cases. No case reported of male foetus within 1st trimester in our study and also no case reported in male infants. Most commonly male foetus died in 2nd trimester 18.75% (06) cases followed by 3rd trimester 06.25(02) cases. Most commonly female foetus died in 3rd trimester 21.88% (07) cases slightly less in 2nd trimester 18.75% (06) cases, least number of cases reported in 1st trimester 03.13% (01) case.

In 07 cases sex could not be determined as foetus was so small, less than 04 month intra uterine life or advance stage of decomposition.

Foetus belongs to less than 04 month intrauterine life sex determination not possible by physical examination or by the autopsy examination. [13]

Sex could not be determined in 12.50% (04) cases in 1st trimester, 3.13% (01) cases in 2nd trimester and 6.25%(02) cases in 3rd trimester. Maximum numbers of case 59.38% were still birth in this study. (Table 2)

Similar findings were seen in Naidu S et al and Rajashree Pradhan et al study where among all perinatal deaths, two thirds (66.66%) were still births and (88.57%) were still born babies respectively. [14, 10]

The live birth and dead born foetus contribute 12.50% (04) separately, 15.63% (05) cases by the autopsy examination longevity could not be determined due dead body was in advance stage of decomposition (Table 2).

Study done by Sawsan A et al they reported that the cause of death couldn't be identified in about 46.88 % of cases due to advanced putrefaction. [9]

In this study duration of death calculated with the help of post-mortem changes seen over the dead bodies during autopsy. Death within 24hours and more than 02 days contribute similarly 40.63% (13) cases separately. Duration of death between 24hours to 48 hours was 18.75% (06) cases. (Table 3)

In present study during autopsy examination some dead bodies were known hospital death and in some cases finding present over the dead body suggest that foetus or infant died in the hospital i.e. hospital tag present around the wrist or ankle joint and written as B/O mothers name W/O father name or hospital dressing or other tag or intravenous cannula or other hospital interventions present over the body.

Total hospital death were 34.38% and non-hospital were 59.38%, while in 6.25% cases it was not decided by the autopsy examination whether hospital death or non-hospital death. (Table 4) Identification of dead bodies

established by autopsy examination and some cases were known identity. The known cases were 37.50% and unknown identity cases were 62.50% in our study. (Fig.1)

In this study we observed that in 50% cases advance stage of decomposition was seen during autopsy examination and in 50% cases there was either early stage of decomposition or decomposition not started. (Fig. 2)

Conclusion:

During this period total 32 infant and foetal post-mortem were conducted. In our study 53.13% (17) cases were female, 25% (08) cases were male and 21.88% (07) cases sex could not determined. Most of the foetus died in 2nd & 3rd trimester was 75% (24) cases, most commonly in 2nd trimester 43.75% (14) cases.

Maximum number of cases was still birth 59.38% (19); the live birth and dead born foetus contribute 12.50% (04) separately.

Death within 24hours and more than 02 days contribute similarly 40.63% (13) cases separately. Duration of death between 24hours to 48 hours was 18.75% cases.

Identification of dead bodies was established by autopsy examination and cases of known identity were 37.50% and unknown identity cases were 62.50%. During autopsy examination we found 50% cases were in advance stage of decomposition and 50% cases were in early stage of decomposition or decomposition not started.

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Table 1: Age and Sex wise Distribution

Age grps (month)	Male (%)	Female (%)	Undetermine d (%)	Total (%)
<04 IUL	00(0.00)	01(3.13)	04(12.5)	05(15.63)
>04-07IUL	06(18.75)	06(18.75)	01(3.13)	14(43.75)
>07-10 IUL	02(6.25)	07(21.88)	02(6.25)	10(31.25)
Infants	00(0.00)	03(9.38)	00(0.00)	03(9.38)
Total	08(25.00)	17(53.13)	07(21.88)	32(100.0)

Table 2: Cases According to Longevity

Longevity	Cases	%
Still birth	19	59.38
Live birth	04	12.50
Dead born	04	12.50
Undetermined	05	15.63
Total	32	100.0

Table 3: According to Time since Death

Time since Death	Cases	%
< 24 hours	13	40.63
>24-48 hours	06	18.75
> 2days	13	40.63
Total	32	100.0

Table 4: According to Place of Death

Place of Death	Cases	%
Non hospital death	19	59.38
Hospital death	11	34.38
Unknown	02	06.25
Total	32	100.0

Fig. 1: According to Identity

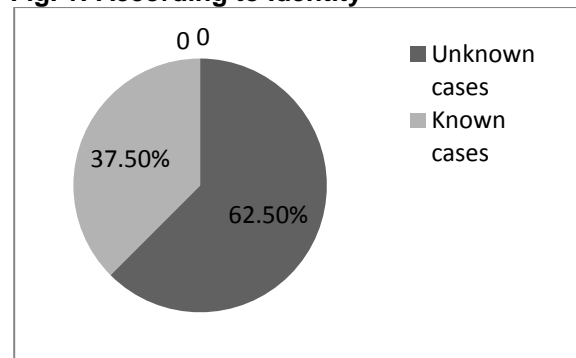


Fig. 2: According to Stage of Decomposition

